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## Oral Presentations

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Online submissions

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http://www.sljol.info/index.php/SLJS/index
ABSTRACTS
ANNUAL ACADEMIC SESSIONS 2015, THE COLLEGE OF SURGEONS OF SRI LANKA

Oral Presentations

Free Paper Session 1
20th August 2015
12.45 - 13.45 pm
OP 1 - 10

OP 1
ADEQUACY OF AXILLARY LYMPH NODE DISSECTION IN BREAST CANCER - ARE WE ACHIEVING RECOMMENDED STANDARDS ? EXPERIENCE IN NORTHERN PROVINCE OF SRI LANKA.

PHC Jayanath1, CRajasooriya2, K Indranath3,
T thaninayagam4, Suithra Panniruharan2, RWMAL Rajapaksha1, RM Gengatharan4, S Raviraj4
1Teaching Hospital, Kandy.
2Cancer Treatment Unit, Teaching Hospital Jaffna, Sri Lanka
3Department of Radiology, Teaching Hospital, Jaffna
4Department of Surgery, Teaching Hospital, Jaffna

Introduction
Axillary Lymph Node Dissection (ALND) part of diagnostic and therapeutic intervention in breast cancer surgery in the Northern Province. The minimum number of lymph nodes (LN)s defining the adequacy of ALND is controversial. However, according to international guidelines, removal of at least 10 LN(s) is considered adequate for accurate staging and good clearance. [1,2]

Objective
To analyse the adequacy of ALND according to the recommended standards.

Material and Methods
This is a cross sectional descriptive retrospective study including 110 patients treated in the Northern Province from 17-03-2012 to 31-03-2014 were included in the study. Data was retrieved from the patients' records.

Results
Among the 110 patients 91% (n= 101) had 10 or more nodes removed. The mean number of LN(s) removed was 15.66. Positive LN(s) were detected in 61 (47%) patients with a mean of 3.47. Lymph node positivity was seen in 40% of patients with ≤ 10 nodes and 63% in 11 or more nodes. This difference was statistically significant (p<0.05)

Conclusions
The adequacy of ALND appears to be in par with the recommended standards. Removing more than 10 nodes appears to give a better yield.

OP 2
A NEW DIABETIC FOOT ASSESSMENT DEVICE: TEMPERATURE AND VIBRATION COMBO-PROTOTYPE

KTD Kahaduwa, YP Lankeshwara, A Arulprashanth, MP Hettiarachchi, MRN Cassim, SM Wijeyaratne
University surgical unit, Faculty of Medicine, University of Colombo

Introduction
Diabetic neuropathy puts the feet in risk of trauma and infection with delayed detection. Microangiopathy of vasa nervorum and other coexisting mechanisms are the culprits. Vibration and light touch are effected early. Identifying areas of inflammation early would help health care providers to take action to salvage limbs. The areas that are likely to ulcerate have been associated with increased local skin temperatures. Early neuropathy is detected currently using the 128Hz tuning fork and the monofilament. This new invention is a modified infrared thermometer which vibrates on demand at 80Hz.

Material and Methods
An infrared thermometer (Accuracy= 36C-39C:+/-0.2C;34C-35.9C:+/-0.3C;Range=5C-40C) was modified with
1. A vibrating motor at 120Hz with 9V
2. A retractable monofilament
3. An adjustable mirror for foot examination
4. A LED pointer to indicate the place of temperature
There were 49 Whipple procedures and 6 distal pancreatectomies. 20 Whipple procedure patients and 5 distal pancreatectomy patients consented. Sixteen (64%) participants were females. Median age was 47 (15-70) years. Eleven (44%) were previously known diabetic patients. The median Body Mass Index (BMI) was 18.28 kg/m$^2$ (11.36-30.07). The median time since surgery was 16 (3-37) months. There was one (4%) newly diagnosed diabetic patient. Out of non diabetics, one had more than 200 mg/dl OGTT at 2 hours. Nine diabetics had HbA1c elevation more than 7%. Mean post-surgical FBS in diabetic patients (136.9 mg/dl) were significantly (p<0.05) higher than pre-surgical FBS (109.4 mg/dl). BMI (p=0.006), waist to hip ratio (p=0.039) and percentage of pancreas removed (p=0.002) showed a significant correlation to worsening of post surgical sugar control.

**Conclusions**

Pancreatectomy leads to worsening of blood sugar control in known diabetics. New onset diabetes is rare. Close follow-up and strict control is needed in known diabetics with high BMI and high waist to hip ratio.

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**OP 4**

**POSITIVE PREDICTORS OF SENTINEL LYMPHNODE POSITIVITY**

NS Atulugama$^1$, BMVC Bandaranayake$^1$, GKS De Silva$^1$, KSK Ariyapala$^1$, EPDS Ediriweera$^1$

$^1$National Cancer Institute, Maharagama
$^2$Faculty of Medicine, University of Kelaniya

**Introduction**

Lymph node status is the single most important prognostic and predictive factor in breast cancer. Therefore, place of proper axillary staging is invaluable and it was routine to perform an axillary Lymph node dissection. Currently, Sentinel Lymph node Biopsy (SLNB) is an oncologically accepted technique for axillary staging in clinically negative axillae with less morbidity. Positive predictors for a histologically positive sentinel lymph node (SLN) are multifactorial.

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**References**

Material and Methods
We did a prospective analytical study since January 2013 in a single unit in patients with early breast cancer and clinically negative axillae. They were offered mastectomy or breast conservation with SLNB. We used Isolated Methylene Blue technique for SLNB. All data regarding pre-op evaluation, surgical data and histological details are recorded in a database. Pearson’s chisquare test, Fishers exact test and logistic regression statistical tools were used. P < 0.05 was considered as significant.

Results
Total number of patients included were 253 and 48 (18.97%) had histologically Positive SLN. Median SLN harvest was 3.

Predictors SLN positivity: on univariate analysis Pathological SLN size, Clinical T stage (T2 vs <T2), Tumor location (Subareolar and Upper Outer quadrant), Histological grade of tumor, Vascular emboli showed statistically significant correlation. But receptor status and age were not significant factors. Multiple logistic regression analysis showed only the tumor location was significant.

Conclusions
Pathological SLN size, Clinical T stage, Tumor location, Histological grade of tumor and presence of Vascular emboli are the positive predictors of histologically positive SLNB in our study.

OP 5
USEFULNESS OF NEEDLE LOCALIZATION BIOPSY (NLB) UNDER IMAGE GUIDANCE FOR NON PALPABLE BRAST LESIONS: A SINGLE UNIT EXPERIENCE
BG Jayawickrama, NJ Nawarathna, BMCV Bandaranayake, GKS De Silva National Cancer Institute, Maharagama

Introduction
Non-palpable breast lesions are detected in either/both mammography and USS, and histological confirmation is vital in their definitive management. The image assisted NLB will confirm the diagnosis and give the definitive operative care at a single procedure.

Materials and Methods
Retrospective descriptive analysis was performed on data of patients presented to a single surgical unit, Cancer Institute Maharagama from March 2014 to March 2015 with radiologically suspicious non-palpable breast lesions. They underwent excision following USS/Mammographic guided localization. Presenting complain, mode of localization, anaesthesia type and histological evaluation were analyzed.

Results
The mean age of the sample (n=108) was 47.84 (±10.2) years. While 34 (29.3%) had presented with lumpiness, 28 (24%) were detected in screening. 23(19.4%) had presented with mastalgia and 13(11.2%) with nipple discharge. A total of 115 needle localizations were performed (90- USS guided, 25- Mammography assisted). Excision biopsy of 17(14.7%) were performed under local anaesthesia and rest 98 (85.2%) under GA. There were no major complications except few surgical site infection and haematoma formation which didn’t require any surgical intervention. Histologically 77% were fibrocystic changes while 15% were fibroadenoma. Atypical ductal Hyperplasia, in-situ malignancies and invasive malignancy were revealed in 8%, 4%, 9% respectively.

Conclusions
NLB is a safe and effective surgical procedure with diagnostic and therapeutic value in benign disease and in accurate early detection of premalignant/ malignant breast lesions.

OP 6
FACTORS AFFECTING POST- EMBOLIZATION FEVER AND LIVER FAILURE AFTER TRANS- ARTERIAL CHEMO- EMBOLIZATION IN A COHORT WITHOUT BACKGROUND INFECTIVE HEPATITIS- A PROSPECTIVE ANALYSIS
LMPM Bandara1, RC Siriwardana2, MA Niriella1, AS Dassanayake1, CAH Liyanage1, C Sirigampala2, A Upasena1, HJ De Silva1
1Faculty of Medicine, University of Kelaniya, Ragama, Sri
Lanka
1Department of Radiology, North Colombo Teaching Hospital, Ragama, Sri Lanka.

Introduction
Transarterial-chemo-embolization (TACE) is used for palliation of unresectable hepatocellular carcinoma (HCC). We studied the tolerability of TACE in a cohort of patients with NASH and alcoholic cirrhosis related HCC.

Material and Methods
Of 290 patients with HCC(July 2011 - December 2014), 84 underwent TACE. They were monitored for post-TACE complications: post embolization fever(PEF), nausea and vomiting (NV), abdominal pain, infection, acute hepatic decompensation (AHD) and acute kidney injury (AKI).

Results
84 patients [90.5% males, 89.2% cirrhotics, 89.2% nodular HCC, median age 63(34-84) years] underwent 111 TACE sessions. All were Child class A [69.4% sessions(n=77)] or B; ascites and portal vein invasion was present in 18(16.2%) and 15(13.6%), respectively. 42 (38.2%) TACE procedures resulted in complications [PEF 28(25.2 %), NV 4(3.6%), abdominal pain 9(8.1%), infection 7(6.3%), AHD 13(11.7%), AKI 3(2.7%)]. There were no immediate post-TACE deaths.

On univariate analysis elevated serum bilirubin (p=0.046) and low serum albumin (p=0.035) predicted PEF while low serum albumin (p=0.021) and low platelet counts (p=0.041) predicted AHD. In the multivariate model, factors with p<0.200 on univariate analysis and factors derived from the previous literature were considered covariates. Female gender (p=0.029,OR=1.412), ascites (p=0.030,OR = 1.212), elevated serum bilirubin(p=0.007,OR= 4.357) and large tumour size (p=0.036, OR=3.603) were independent risk factors for PEF. Tumour diameter >5cm (p=0.049,OR=2.410)and elevated serum bilirubin (p=0.036,OR=1.517) predicted AHD.

Conclusions
In NASH and alcoholic cirrhosis related HCC patients pre-procedure serum bilirubin, ascites, tumour size and female gender predicted PEF post-TACE. Tumours larger 5cm with elevated bilirubin predicted AHD post-TACE.

OP 7
OUTCOME OF MINIMALLY INVASIVE PROCEDURES FOR EARLY BREAST CANCER
NS Atulugama1, BMVC Bandaranayake1, GKS De Silva1, KSK Ariyapala1, EPDS Ediriweera1
1National Cancer Institute, Maharagama
2Faculty of Medicine, University of Kelaniya

Introduction
Worldwide incidence of stage I breast cancer is around 41%. For primary breast lesions management trend has changed from mastectomy to breast conservation (BCS) and for axillary staging from routine nodal dissection (ALND) to Sentinel Lymph node Biopsy (SLNB) in clinically negative axillae. In many studies it has been proven that this paradigm shift has brought increase patient satisfaction with less morbidity and with same oncological outcome.

Material and Methods
Patients with early breast cancer and clinically negative axillae were prospectively analysed in a single unit from January 2013. They were offered breast conservation or mastectomy (on patient’s request) with SLNB. We used Isolated Methylene Blue technique (IMBT) for SLNB. All patients followed up for 2 years with standard surveillance protocol and data comprising of pre-op evaluation, surgical data, histological details and surveillance were recorded in a database.

Results
Total number of patients included were 253. BCS was offered for 157 (62.05%) patients.

Ninety five (60.5%) had Primary closure, 49(31.2%) had Volume displacements and 15 (9%) had Volume replacements. Twenty eight patients needed re-surgery immediately due to inadequate margins and 14 ended up in mastectomy.

Out of mastectomy patients 6 had TRAM and 4 had LD immediate reconstructions.
Conclusions
BCS and SLNB with IMBT can be offered for early breast cancer patients with non-inferior oncological outcome compared to standard treatment of mastectomy and axillary clearance.

OP 8
EARLY POST OPERATIVE OUTCOMES FOLLOWING LOWER EXTREMITY BYPASS SURGERY; A SINGLE UNIT EXPERIENCE
MP Hettiarachchi, WLADA Prasanna, A Weerasekera, YP Lankeshwara, A Arulprashanth, MRN Cassim, SM Wijeyaratne
University surgical unit, Faculty of Medicine, University of Colombo

Introduction
Surgical bypass procedures are one of the main therapeutic options for patients with critical limb ischemia. This is an audit of a single unit experience with bypass surgery.

Material and Methods
A retrospective analysis was conducted on all patients who underwent lower extremity bypass surgery in the University Surgical Unit, Colombo from January to December 2014. Data on postoperative outcomes until day 14 were collected from patient records.

Results
A total of 100 procedures were performed during this period. Infra-inguinal bypasses accounted for 85 (85%) and supra-inguinal bypasses for 15 (15%). Infra-inguinal procedures consisted of 44 femoro-popliteal bypasses (44%) and 41 distal bypasses (41%). Supra-inguinal procedures consisted of 4 aorto-femoral (4%), 4 femoro-femoral (4%), 1 ilio-profundal (1%), 1 axillo-bifemoral (1%) and 5 axillo-unifemoral bypasses (5%). In the infra-inguinal group, limb salvage rates were 89% (39/44) for femoro-popliteal bypasses and 85% (35/41) for distal bypasses. In the supra-inguinal group, limb salvage was 100% (4/4) following aorto-femoral bypass and 64% (7/11) in the remainder consisting of axillo-femoral procedures and femoro-femoral crossovers.

The indications for amputation were graft thrombosis 10 (10%) and ascending sepsis 2 (2%). Overall mortality rate was 6%. Causes were myocardial infarction (5) and stroke (1). Mortality rates for infra-inguinal and supra-inguinal procedures were 2%, (2/85) and 27%, (4/15) respectively.

Conclusions
Our study shows comparable limb salvage and mortality rates following femoro-popliteal and more technically demanding distal bypasses. Higher mortality and amputation rates following supra-inguinal bypasses warrant better patient selection in this subgroup.

OP 9
EARLY DIABETIC FOOT CHANGES AMONG ASYMPTOMATIC RENAL TRANSPLANT RECIPIENTS: RISK ASSESSMENT AND RECOMMENDATIONS FOR MITIGATION.
Om Prakash Prajapati, AK Verma, Sabaretnam M, RK Sharma
Sanjay Gandhi Postgraduate Institute of Medical Sciences (SGPGI), Lucknow, India

Introduction
In renal transplant clinics, condition of the foot is never enquired. Thus incidence of early diabetic neurovasculopathy remains unknown among diabetics undergoing renal transplantation. The subtle changes may progress to a full blown neuropathic diabetic foot, threatening the limb. We conducted a study to quantify ‘at risk foot’ among these asymptomatic patients.

Materials and Methods
A prospective study was conducted since November 2013 to January 2015. Total 151 transplant patients were studied and divided into 3 groups viz. Diabetic transplants (n=42), Non-diabetic patients developing diabetes soon after transplantation [NODAT] group
(n=59) and Controls i.e. non diabetic renal transplant recipients (n=50). Foot neuropathy and vasculopathy were assessed by standard methods. All patients with 'at risk' foot were counseled about diabetic control and foot care.

**Results**
Peripheral neuropathy was present among 42.9% of diabetic transplant patients, 35.6% of NODAT patients and 12% of control patients. Corresponding figures for Vasculopathy were 28.6%, 23.7% and 2% respectively. On multivariate analysis patient's age, mean time interval before transplant and HbA1c levels were significantly correlated with neuropathy whereas duration of diabetes and VPT (marker of neuropathy) were correlated with vasculopathy. Immunosuppressive regimens didn’t differ significantly. Anti-rejection therapy worsened diabetes and neuropathy. Counseling about foot care and diabetes helped improve HbA1c and neuropathy in 11 patients.

**Conclusion**
After renal transplantation, many asymptomatic diabetic and NODAT patients have early neuro-vasculopathy which in future may develop into full blown lesions of diabetic foot threatening the limb. Foot care advice to patients and informing treating doctor helps to mitigate the risk.

**Free Paper Session 2**
21st August 2015
08.00 - 08.30 am
OP 11 - 15

**OP 11**
ROBOTIC HELLER’S CARDIOMYOTOMY (HC) – A NOVEL SURGICAL TREATMENT FOR ACHALASIA, A 6 YEAR EXPERIENCE IN UPPER GI UNIT IN UK
CT Keppetiyagama, S Kadirkamanathan, CB Tang, NV Jayanthi, K Fareed, P Sriwardhana, H Winter, P Caine, J Durcan, M Qamruddin
Upper GI Surgical Unit, Broomfield Hospital, Mid Essex Hospitals NHS Trust, UK
Introduction
HC using a computer-enhanced (robotic) laparoscopic platform allows for a more precise dissection. This is achieved by utilizing the superior optics of a 3D camera and greater degrees of freedom provided by robotic articulated instrumentation. Our aim was to assess short to long term outcomes in terms of mucosal integrity, hospital stay and symptom improvement.

Materials and methods
A retrospective review of prospectively collected data was performed of patients underwent robotic HC between July 2009- June 2015. HC was performed using a Da Vinci robot (Intuitive Surgical Inc.) with 4 laparoscopic ports. Anterior mobilization of the oesophagus was performed leaving the posterior component of phreno-oesophageal ligament intact. A longitudinal myotomy was made extending into the proximal stomach. An anti-reflux procedure (ARP) was not routinely performed.

Results
25 patients underwent surgery (12 males). Median age was 45 years (15-68). Two patients had simultaneous ARP. Median length of myotomy was 7-cm (5-10). No mucosal breaches were identified at surgery and there were no postoperative leaks. Median length of stay was 1 day (1-28). One patient (4%) had chest infection and DVT and resulted in prolonged stay. Median follow up was 214weeks (9- 310 weeks). One (4%) needed oesophageal dilatation, 3 years later. None required re-operation.

Conclusion
Robotic HC facilitates precise myotomy without perforations. None developed troublesome reflux, which may well be due to the preservation of the posterior component of the phreno-oesophageal ligament. Robotic HC may become the standard treatment for achalasia in the near future.

OP 12
CHANGING TRENDS OF BLADDER CANCER IN SRI LANKA
S Sasikumar1, KSN Wijayarathna1, KAMS Karunaratne2, U Gobi3, A Pathmeswaran3 Anuruddha M Abeygunaskera1
1 Department of Urology, Colombo South Teaching Hospital, Sri Lanka
2 Department of Pathology, Colombo South Teaching Hospital, Sri Lanka
3 Department of Public Health, Faculty of Medicine, University of Kelaniya, Sri Lanka

Introduction
The aims of the study were to determine clinic-pathological characteristics of bladder carcinoma treated in a urology unit of Sri Lanka and to identify important differences by comparing with previous studies done in Sri Lanka during the last two decades.

Material and Methods
Prospectively collected data of all newly diagnosed patients with bladder cancer in a tertiary referral centre from 2011 to 2013 were analysed with regard to clinical presentation, age, gender and histopathological diagnosis. Data on clinical and histopathological features of bladder cancers diagnosed from 1993 to 2013 were obtained from previous publications.

Results
Among 115 patients, mean age was 65 years and male to female ratio was 4.8:1. Urothelial carcinoma (UC) was found in 89.5% of patients in this study similar to other urology unit based studies. Muscle invasion was noted in 35% of patients compared to 48.4% two decades ago (p < 0.05). In patients with UC, 18% were found to have pT1 high grade tumour. It was 5.3% in the earlier studies (p < 0.05). Pure squamous cell carcinoma was found in 8.7%. According to studies done at National Hospital of Sri Lanka (NHSL), squamous cell carcinoma accounts for 3% (p < 0.05).

Conclusions
The percentage of squamous carcinoma is higher among Sri Lankan patients with bladder cancer treated outside NHSL and further studies are necessary to ascertain the
reason for this. The percentage of muscle invasive disease has decreased while the percentage of pT1 high grade tumours has increased during the last two decades.

OP 13
SAFETY AND EFFICACY OF LAPAROSCOPIC VENTRAL MESH RECTOPEXY AND SACROCOLPOPEXY FOR RECTAL PROLAPSE AND OBLITERATED DEFECTION: ANALYSIS OF FIRST 20 CASES AT A UK DISTRICT GENERAL HOSPITAL
A B Tennakoon, G Farook
Sunderland Royal Hospital, Kayll Road, Sunderland, United Kingdom

Introduction
Laparoscopic ventral mesh rectopexy (LVMR) is gaining wider acceptance. The aim of this study is to present that LVMR can be learnt and safely performed with short term results similar to that of establish centres.

Materials and Methods
All underwent anorectal physiology, defecation proctography, colon transit studies, colonoscopy or sigmoidoscopy as appropriate and pelvic floor MDT and biofeedback. Patients with high grade intussusception who did not respond to laxatives and biofeedback were offered LVMR. Surgical technique was as described by A. D’Hoore et al. and performed by both authors. Data are presented as median, range and proportions.

Results
Median age, ASA & BMI were 60.5 (34-78), 2 (1-3), 26.1 (20.4-33.1). Previous pelvic surgery included hysterectomy (35%), vaginal wall repair (15%) and rectal prolapse surgery (20%). 60% had Oxford prolapse grades 3/4 and rest were grade 5. Median operative time was 229 minutes (175-330). Synthetic mesh was used in 16 patients (Parietex 30%, TiLENE 50%) and Permacol in 4(20%). 30 day mortality was zero. There were no conversions and overall complication rate was 10% (1 wound infection and 1 port site hernia). Sexual dysfunction was not reported. Median length of stay was 3(2-6). 17 patients (85%) had 6 months or more follow up. Median patient reported outcome for satisfaction was 9.5 on a scale of 1 to 10(2-10). 2 patients developed recurrences at 6 and 12 months.

Conclusions
We suggest that experienced laparoscopic surgeons can learn and safely perform laparoscopic ventral mesh rectopexy.

OP 14
PERCUTANEOUS SUPRAPUBIC APPROACH TO BLADDER WITH LAPAROSCOPIC TROCAR UNDER TRANSURETHERAL CYSTOSCOPIC GUIDANCE: AN ALTERNATIVE METHOD FOR TREATMENT OF LARGER BLADDER CALCULI
M.G.L.Weerawadhana, T.U.Subasinghe, T.S.Dharmasiri, M.A.N.S.Hemachandra, D.A.Dissanayake
District general hospital, Gampaha, Sri Lanka

Introduction
The classic operative treatment methods of bladder stones removal are suprapubic vesicolithotomy and transurethral cystolitholapaxy. Open suprapubic vesicolithotomy is a well-recognized option for easy removal of larger stones. Main draw backs are the post-operative pain due to larger incision, longer hospital stay and longer bladder catheter time.

Objectives
We introduce an alternative minimally invasive technique for the suprapubic vesico-lithotomy.

Material and Methods
12 Patients with bladder calculi (single or multiple) were included in our study. Under spinal anaesthesia patient in the lithotomy position, transurethral cystoscope is introduced to visualize the bladder calculi. Under videendoscopic view a 10mm laparoscopic trocar was introduced directly into the bladder suprapubically when it is fully distended with saline. Under direct vision with or without fragmentation stones were extracted with laparoscopic grasper. Trans-urethral bladder catheter was left inside.
Results
In 11 patients stones were successfully removed. Only one patient was converted to the suprapubic vesicolithotomy. Average duration of the procedure was 15-20 mins after induction of anaesthesia. Patients were discharged on first post-operative day. Catheter was removed on fifth post-operative day. Patients were followed up for 6 months for complications. None of them reported with bladder fistula.

Conclusion
Simultaneous use of transurethral cystoscopy and percutaneous suprapubic approach with laparoscopic 10mm trocar for extraction of bladder calculi is a safe and easy method for removal of larger bladder calculi with minimal bladder injury and post-operative pain.

OP 15
BLOODLESS PROBELESS FISTULECTOMY; OPERATIVE TECHNIQUE WITH MINIMAL RECURRENCE
MGSR Kumara, BGN Rathnasena, MSE Karunadasa, WMSB Thilakarathne, S Rubeka
National Hospital of Sri Lanka

Introduction
Anal fistula is one of the most challenging anal conditions in surgical practice. Recurrence is one of the most worrying complications following fistula surgery while faecal or flatus incontinence is also concerned. We completely excise the fistulous tract with electrocautery following injection of methylene blue to delineate fistula tract.

Material and Methods
Patients who underwent fistulectomy in our unit from January 2009 to December 2014 were retrospectively analyzed. Complications and recurrence were assessed at follow up visits.

Results
Out of 63 patients who underwent fistulectomy 54(85.71%) were males and 9(14.28%) were females. Fifty nine (93.66%) patients had superficial and rest had intermediate fistulae according to Park’s classification. Perianal abscess was the etiology in 51(80.95%) cases. Mean follow up period was 22.2 months. Time taken for wound healing ranged from 6 weeks to 18 weeks and mean duration was 10.3 weeks. Average hospital stay was 2.5 days. Recurrent fistula reported in two cases and one of them had positive perianal Tuberculosis. None of patients had fecal incontinence. Eight (12.69%) patients complained flatus incontinence.

Conclusion
Being probeless this procedure prevents creation of false tracts. Usage of electrocautery makes it bloodless and complete excision of tract is ensured by injection of methylene blue. Considering the results of this study and compared to the literature, our technique shows excellent results with minimal recurrence and complications for both superficial and intermediate fistulae. This technique can be practiced at any center with basic surgical facilities.

Bartholomeusz Prize Session
21st August
12.25 - 13.55 pm
BP 1 - 10

BP 1
OPEN DISTAL REVASCULARIZATION IN CHRONIC KIDNEY DISEASE; IS IT WORTHWHILE?
Chathu Sahabandu, Nalaka Gunawansa
National Institute of Nephrology Dialysis and Transplantation
Sri Lanka

Introduction
Diabetes is a leading cause of Chronic Kidney Disease (CKD) and Peripheral Arterial Occlusive Disease (PAOD). Critical Limb Ischaemia (CLI) due tibial occlusive disease in CKD is a huge clinical challenge with limited data on outcome of revascularization.

Material and Methods
A prospective case control study to evaluate the outcome of distal surgical revascularization for Fontaine stage IV-CLI in those with CKD (Group 1= eGFR<90)
compared to those with eGFR>90 (Group-2). Mean ages were 54 years (Group-1) and 58 years (Group-2). All had operator performed duplex imaging and Group-2 had additional CT angiography. Study period was January 2010 to January 2015; the 6 month patient survival, graft patency and limb salvage rates were compared. All had autogenous vein grafts with standardised surgical technique. Secondary endovascular interventions were not required.

Results
67 consecutive surgical revascularizations were performed in 65 patients (Group-1, 37; Group-2, 28). There was one peri-operative mortality (Group-1) on day-02. The respective rates of patient survival were (92% v 93%; p>0.05), graft patency (89% v 96%; p=>0.05) and limb salvage (84% v 96%; p<0.05). Two patients in Group-1 had below knee amputations with a functioning graft due to advancing sepsis. Subgroup analysis of Group-1, showed a significant decline of all clinical end points in those with End Stage Kidney Disease (ESKD; eGFR<15).

Conclusions
CLI in the CKD population should be offered open revascularization where appropriate. Despite a statistically significant difference in limb salvage rates compared to the control group, the overall results are impressive and encouraging.

BP 2
EFFECTIVENESS OF PROPHYLACTIC CENTRAL COMPARTMENTAL NECK DISSECTION IN PAPILLARY THYROID CANCER
NS Atulugama¹, BMVC Bandaranayake¹, GKS De Silva¹, KSK Ariyapala¹, EPDS Ediriweera²
¹National Cancer Institute, Maharagama
²Faculty of Medicine, University of Kelaniya

Introduction
Standard treatment for Papillary thyroid cancer is Total Thyroidectomy (TT) and selective block dissection for node positive disease. Incidence of central compartmental nodal (CCN) involvement estimated to be 30-70% though preoperative staging is suboptimal due to anatomical location. Therefore, many advocate Prophylactic Central Compartmental Neck Dissection (PCCND) as a staging and therapeutic procedure, but others believe no added therapeutic value despite higher incidence of complications.

Material and Methods
All pathological reports of patients who have undergone TT with PCCND for Papillary thyroid cancer in a single unit from 2014 January to 2015 June was collected and entered into a database. Clinical node negativity was considered when both examination and pre-op USS was negative. This is a single unit experience and our routine practice is to do PCCND in all clinically node negative disease patients. Pearson’s chisquare test and Fishers exact statistical tools were used to assess predictors of CCN involvement. P<0.05 was considered as significant.

Results
Total of 27 cases found and 20 (74%) cases didn’t reveal a single positive node. Nineteen had unifocal disease of thyroid and only 5 (26%) had ipsilateral CCN positivity. Six patients had multifocal disease and 3 had positive CCN disease. Positive predictors of CCN: Clinical stage, Multifocal disease, Histological type, Vascular invasion and age are not significantly associated.
Fourteen (52%) patients had at least 1 parathyroid gland included in the specimen.

Conclusions
Nearly 3/4 of patients undergo unnecessary PCCND. Further studies are needed assess the predictors of CCN involvement.

BP 3
TRANSPOSITION BASILIC ARTERIO-VENOUS FISTULAE; NOT GIVING UP ON AUTOLOGOUS VASCULAR ACCESS
Chathu Sahabandu, Nalaka Gunawansa
National Institute for Nephrology Dialysis and Transplantation
Sri Lanka
Introduction

An Autologous Arterio-Venous Fistula (AAVF) is the benchmark for chronic hemodialysis in End Stage Renal Failure (ESRF). However, most patients referred to our specialized unit have already exhausted the preferred superficial AAVF options. A Brachio-Basilic Transposed AVF (BB-TAVF) is the next option prior to prosthetic access.

Material and Methods

A prospective comparative analysis of all AAVF performed from June 2012 to April 2015. BB-TAVF under local anesthesia was performed in the absence of viable superficial veins in both arms. All patients had pre-operative duplex scanning and vein mapping by the operating surgeon. Those with a pre-operative vein diameter of >4mm had primary transposition (Group-1) while others had staged transposition after 6 weeks (Group-2). All were followed up with duplex imaging at 1, 4 and 8 weeks post-procedure and were compared for fistula patency, post-operative pain and wound complications.

Results

There were 912 AAVF performed, including 108 BB-TAVF. 41/108 (38%) had primary transposition while the other 67/108 (62%) were staged. Mean follow-up was 16 (2-36) months. Primary patency rates were; Group-1, 74% and Group-2 80%, which was statistically not significant (p=0.18). There was also no significant difference in the post-operative pain scores and wound complication rates.

Conclusions

BB-TAVF showed good durability and reliability for long term vascular access, when done in a systematic manner. They should always be considered before prosthetic access in patients who have exhausted superficial vein options.

Introduction

Gastroparesis is a debilitating disorder of gastric motility resulting in symptoms of nausea, vomiting, bloating and abdominal pain. In non-responders to medical treatment, Gastric Electrical Stimulation (GES) can improve symptoms, leading to an improved quality of life. We present our 14-years experience of GES.

Material and Methods

Data were prospectively collected from December 2000 to January 2015. Patient demographics, aetiology, pre and post GES insertion symptom scores for nausea, vomiting, satiety, bloating and abdominal pain were collected. Information on surgical intervention, complications, feeding requirements and number of hospital admissions pre and post GES insertion were also included. Quality of life was assessed by SF-36 questionnaires.

Results

A total of 104 patients underwent GES insertion (Female 76, Male 28). Median length of stay was three days (range 1-45 days) and follow up was 42.5 months (6-168 months). There were significant improvements in nausea and vomiting score (p=0.0001), abdominal pain (p=0.005) and bloating (p=0.001) following GES insertion. The median number of hospital admissions was significantly reduced from six to zero episodes per annum (p=0.002). Assisted Nutrition requirements were also significantly reduced (p=0.001). Overall quality of life using SF-36 scores improved from a mean of 190/500 to 415/500 (p=0.0001).
Conclusion
GES improves patient symptoms and quality of life. It reduces health care utilization by avoiding long-term hospital stays and repeated admissions and a reduction in the need for assisted feeding. GES is a safe and an effective procedure and our study represents the longest consecutive study in Europe and UK.

EARLY ORAL FEEDING FOLLOWING OESOPHAGECTOMY AND OESOPHAGO-GASTRECTOMY WITHOUT FEEDING JEJUNOSTOMY
MGSR Kumara, BGN Rathnasena, WMSB Thilakarathne, MSE Karunadasa
National Hospital of Sri Lanka

Introduction
Starting feeding following oesophagectomy or oesophago-gastrectomy is a controversial area and different centers practices different policies. Majority delay oral feeding and start with parenteral or jejunostomy feeding during first few days. Our unit starts oral feeding on post-operative second day. This study designed to assess advantages and disadvantages of starting early oral feeding without jejunostomy or parenteral nutrition.

Material and Methods
This was a retrospective and prospective observational study and patients who underwent oesophagectomy or oesophago-gastrectomy from January 2010 to May 2015 were included in this study. Data was obtained by interviewing patients and from patients’ admission and follow up records.

Results
Data collected from 26 patients and male to female ratio was 3(75 %) to 1(25 %). Patients' age ranged from 43 to 78 years. Anastomotic site was cervical in 21(87.5%) and intra-thoracic in 3(12.5%). All anastomosis were made with hand suturing. None had feeding jejunostomy. Two patients died on post-operative second day due to causes not related to feeding. Oral sips started after extubation in all patients. Liberal liquids were started on 3rd, 4th and 5th post-operative day in 5(20.8%), 14(58.3%) and 5(20.8%) patients respectively. Solids were introduced by post-operative 6th day in 14(58.3%). None developed anastomotic leakage or aspiration pneumonia. Average ICU stay was 2.2 days and hospital stay was 11 days.

Conclusion
It is safe to start early oral feeding following oesophagectomy or oesophago-gastrectomy and carries no risk of anastomosis related complications. This avoids complications related to jejunostomy or parenteral feeding and reduces patients’ discomfort and fastens overall recovery.

SINGLE VERSUS MULTIPLE RENAL ARTERIES IN DONOR KIDNEY; DOES IT MATTER?
Chathu Sahabandu, Nalaka Gunawansa
National Institute for Nephrology Dialysis and Transplantation
Sri Lanka

Introduction
Renal allografts with multiple arteries requiring complex reconstruction have long been considered to cause increased vascular / urological complications in renal transplantation. With the increasing demand for donors, exclusion based on 'unfavourable' arterial anatomy has become prohibitive. We studied the implications of multiple donor arteries on the graft and recipient outcome.

Material and Methods
A prospective analysis of all live donor transplants by a single unit between March 2012 and March 2015 (n=191). The median follow up was 14 months. There were three groups; Group 1: single artery, single anastomosis (n=141), Group 2: multiple arteries, reconstructed single anastomosis (n=41), Group 3: multiple arteries, two anastomoses (n=9). Among these, 43 had two, 5 had three and 2 had four arteries. Incidence of Delayed Graft Function (DGF), Transplant Renal Artery Stenosis (TRAS),
Results
The incidence of DGF was; Group-1 (13/141=9.2%), Group-2 (3/41=7.3%) and Group-3 (1/9=11%), statistically not significant. There was no TRAS doppler screening nor any MUC during follow up. One patient with impaired arterial doppler signals caused by kinking (Group-1) required repositioning only. There was no significant difference in the medium term graft outcomes (serum creatinine levels). Overall patient and graft survival were 185/191 (97%) and 187/191 (98%)

Conclusions
Multiple renal arteries should not be a decisive factor in rejecting live donors for transplantation. With meticulous and standardized technique, the outcomes are comparable to those with uncomplicated renal anatomy.

INCIDENCE OF MICROPAPILLARY THYROID CARCINOMA IN PATIENTS WITH MULTINODULAR GOITER (MNG) FOLLOWING THYROIDECTOMY FOR A CAUSE OTHER THAN MALIGNANCY
Gunapala KNM, Gamage HGSS, Fernando J, Wickramaratne D, Ranasinghe LA
National hospital of Sri Lanka

Introduction
Incidence of micropapillary thyroid carcinoma (MPTC) is 5 to 12%. It is an indication for surgical intervention. This study describes the incidence of MPTC in patients with MNG who underwent surgery for non-malignant conditions.

Material and methods
Records of 813 patients who underwent total thyroidectomy for MNG during the year 2014 reviewed retrospectively. Patients with suspected malignant features clinically radiologically or cytologically excluded. Patient’s age, gender, FNAC, histological diagnosis, site, size and number of MPTC were analyzed.

Results
Thirty-five of patients from 813 were having micropapillary carcinoma (4.3%). 36-50 age group has the highest frequency with median age of 45 years. 91.9% of patients were female.

Multifocality detected in 75.7% cases. 64.9% were on right lobe, 18.9% were on left, 8.1% were on isthmus and 8.1 % in both lobes. Average size was four millimeters.

Conclusions
Considerable proportions of MNG without suspicious malignancy had MPTC which is comparable with international literature.

Incidence is higher in middle age females and reduces in old age, may be due to spontaneous regression or conversion to overt malignancy and need to be assessed further.

Risk factor assessment for MPTC is vital because patients with MNG with negative cytology and radiology still can have MPTC.

FACTORS ASSOCIATED WITH ADAPTATION TO ALTERATION OF BODY IMAGE AMONG STOMA PATIENTS
U Jayarajah, DN Samarasekera
Department of Surgery, Faculty of Medicine, University of Colombo, Sri Lanka

Introduction
Creation of ostomy leads to significant change in the body image of the patient. Adaptation to this alteration of body image is necessary for rehabilitation following surgery. The objective of this study was to identify the factors that influence adaptation to altered body image.

Material and methods
An analytical cross sectional study was conducted among 38 ostomy patients who were treated at a single tertiary care unit. Body image disturbance questionnaire (BIDQ) was used to assess perception of body image. An interviewer administered questionnaire was used to collect data on possible associated factors.
Data was analysed using one way ANOVA, Chi square test and Spearman’s correlation.

Results
The mean BIDQ score was 15.5±6.51 (range:7-35). Of the participants 18.4%(N=7) had significantly high body image disturbance. The body image disturbance was significantly associated with younger age (p<0.05). The prevalence of body image disturbance was significantly higher among overweight participants(p<0.05). Males had a higher BIDQ score than females. Those who had temporary stoma had significantly higher BIDQ score(p<0.05). Those who felt depressed after surgery or had thoughts of self harm had significantly high body image disturbance(p<0.05). There was no significant association between body image disturbance and the diagnosis, type of surgery or time duration after surgery.

Conclusions
Poor adaptation to alteration of body image was associated with younger age, overweight and temporary stoma. Individuals at risk of poor adaptation should be identified before surgery and counselled before surgery, after surgery and during follow up visits.

BP 9
TELEMEDICINE REFERRAL FOR ORTHOPAEDIC CASES AT A PERIPHERAL HOSPITAL
WAMA Willaraarachchi, RPR Premadasa, J Jeyakumar, V Swarnakumar, N Nugaduwa
1District Base Hospital, Wathupitiwala, Sri Lanka.
2Colombo North Teaching Hospital, Ragama, Sri Lanka.

Introduction
Telemedicine referral is exchanged communications via Two-way video, email, smart phones, wireless tools, SMS, to improve a patient’s clinical health status. District base hospital, Wathupitiwala (DBHW) has a multitude of acute orthopaedic trauma admissions. After initial management subsequent orthopaedic opinion was taken from Orthopaedic trauma unit at Colombo north teaching hospital (CNTH) via telemedicine referrals.

Material and Methods
A prospective study was done at DBHW during a 6 month period period from 1st December 2014 to 31st May 2015. A template was used. History, management, digital photographs of radiographs and of the wound were referred using telemedicine. Trauma patients requiring orthopaedic opinion were included in the process except those whom the surgeon decided needed immediate transfer to NHSL for Neurosurgery/Vascular unit.

Results
178 patients were referred in 102 batches. The initial management at DBHW was accepted in 103 (57.9%). Minor corrections were advised in 32 (18%) and 23 (12.9%) were to be reviewed in the clinic at CNTH before discharge . Only 20 (11.2%) required immediate transfer. Maximum delay in obtaining an opinion was 10 hours (overnight). Overall, 135 (75.9%) patients were saved a four/six hour round trip. An estimated 98 ambulance journeys including 3 to 4 staff members per journey were saved.

Conclusions
Telemedicine referral system is feasible and convenient to patients. It also reduces the hospital burden.

BP 10
BENIFICIAL EFFECTS OF PRELIMINARY BANDAGE THERAPY (FOUR LAYER BANDAGE) IN THE MANAGEMENT OF CHRONIC VENOUS LEG ULCERS.
PHC Jayanath
Teaching Hospital, Kandy

Introduction
Chronic venous insufficiency in lower extremities can result in venous stasis, venous hypertension and oedema, causing pain , discomfort and eventually the development of chronic venous ulcers. Multilayer compression bandage therapy has proven benefit and provides a means to treat or prevent these adverse events. But the efficacy of the preliminary type of bandage systems, used in the hospital setup in Sri Lanka, such as Four-layers bandage, is not proven.
Objective
To assess the degree of ulcer healing and acceptability and tolerance of patients with four layer bandage (4LB) therapy.

Material and Methods
A prospective study was carried out at the Teaching Hospital Jaffna. 42 patients were followed-up for 6 months and data was obtained using a questionnaire. The ulcer surface area was traced in cm2 monthly and a photograph was taken. Absolute Wound Area Reduction (AWAR) was analyzed.

Results
33.3% of patients had an Absolute Wound Area Reduction (AWAR) rate of less than 0.5 cm² per month while 57.1% of patients had a AWAR rate of less than 1 cm² (0 to 1 cm²) per month. 9.5% of patients had no response. According to patients perception most were satisfied with the 4LB therapy (61.9%) and wound healing (66.6%), irrespective of very low AWAR rates.

Conclusions
The preliminary type of compression bandage therapy is not fully beneficial, in the management of chronic venous leg ulcers, when used as a sole therapy.

Efficacy of subcutaneous morphine in post operative pain relief is well known but its safety in our ward setting is still not established.

Objective
To assess the degree of pain relief by subcutaneous morphine on postoperative Day 1.
To assess the safety of treatment and competency of staff on drug administration.

Material and Methods
This is a prospective study of 200 patients following abdominal surgeries. Consecutive hundred patients, from each male and female wards, were selected. First fifty were given only routine analgesics. Next fifty were given morphine in addition. Pain score (Visual analogue scale) was marked by the patients, on Day 0 and Day 1. Respiratory rate and arterial saturation of oxygen were monitored. Degree of competency of nursing staff and intern house officers were assessed according to drug administration guidelines.

Results
The majority of patients (61%) who had not received subcutaneous morphine rated Grade 3 and above on Day 1. The Majority of patients (63%) who received subcutaneous morphine rated Grade 2 on Day 1. None of the patients who received morphine showed signs of respiratory depression. 18 out of 22 nurses and 4 house officers scored 5 out of 5 rights. Others got 4.

Conclusion
Intermittent subcutaneous morphine can be safely administered in Sri Lankan ward setting, even without cardiorespiratory monitoring facilities. The majority of ward staff are competent and motivated regarding the safety of administrating subcutaneous morphine.

Introduction
Intermittent subcutaneous morphine can be safely administered in Sri Lankan ward setting, even without cardiorespiratory monitoring facilities. The majority of ward staff are competent and motivated regarding the safety of administrating subcutaneous morphine.

Free Paper Session 3
22nd August
14.00-14.30pm
16-20

OP 16
THE SAFETY OF INTERMITTENT SUBCUTANEOUS MORPHINE IN POST OPERATIVE PAIN RELIEF.
IS IT SAFE TO ADMINISTRATE WITHOUT CARDIAC MONITORS?
Jayanath P.H.C, Raviraj S
Professorial Unit, Teaching Hospital, Jaffna

OP 17
INTRODUCTION AND VALIDATION OF PEDIATRIC EARLY WARNING SYSTEM IN PEDIATRIC SURGICAL UNIT
HKC Lakmal, M Ambegoda, A Abeydeera, M Samarasinghe, R Dias
University Pediatric Surgical unit, faculty of medicine,
University of Colombo, Sri Lanka

Introduction
Studies have shown that nearly half of the adverse events in inward patients are reversible. Standard protocols and monitoring charts will be helpful in minimizing the human errors in post-operative monitoring especially in pediatric patients. There is a lack of validated pediatric early warning system locally.

Material and Methods
A professional panel was formed including two pediatric surgeons, three anesthetists involved in pediatric anesthesia and one pediatric surgical ward nursing sister. Seven parameter (temperature, heart/pulse rate, respiratory rate and effort, blood pressure, pain assessment and level of consciousness) monitoring tool was introduced and frequency of monitoring was concluded by the panel. Paediatric Early Warning Scoring System (PEWS) scores sub categorized according to age groups of 0-3 months, 4-12 months, 1 to 4 years and 5-12 years. Each expert was provided with available international evidence and a template of PEWS and their agreement level of PEWS was attained. Final PEWS was implemented with consensus of the panel.

Results
BHT records of pre-PEWS introduction (n=61) and post PEWS introduction (n=20) were analyzed. Monitoring of all seven vital parameters in post-operative patients got improved after introduction of PEWS. Pre and post PEWS introduction post-operative complication rates were 1.6% (1/61) and 0% (0/20).

Conclusions
We developed and validated a local PEWS successfully. Maintenance of PEWS in pediatric surgical wards as a post-operative monitoring tool is feasible. Prospective studies are needed to assess degree of clinical impact of PEWS.

OP 18
UPPER GASTRO INTESTINAL ENDOSCOPIC FINDINGS AND ASSOCIATION BETWEEN ALARM FEATURES AND UPPER GASTRO INTESTINAL MALIGNANCY AMONG DYSPEPTIC PATIENTS IN A TERTIARY CARE SETTING

RT Gamage, JR Wijesekera, DT Wijesinghe, ALAMC Ambegoda, KI Panditharathne
Colombo North Teaching Hospital of Sri Lanka

Introduction
Dyspepsia is a major cause of gastrointestinal (GI) system related morbidity in Sri Lanka. The study aimed to describe the upper GI endoscopic findings and to explore the association between alarm features (AF) and upper GI malignancy among dyspeptic patients.

Material and Methods
A descriptive cross sectional study was done on newly diagnosed dyspeptic patients in a general surgical clinic of a tertiary care hospital from April 2014 to March 2015. Following the administration of a pre-tested interviewer-administered questionnaire the patients underwent an Upper GI Endoscopy (UGIE) as a management step. A data extraction sheet was used to gather the endoscopy findings.

Results
A total of 111 endoscopies were performed. Male to female ratio was 1:1.05 and mean age of population was 50.7. Endoscopic findings consisted of peptic ulcer disease (n=22, 19.8%), gastro-oesophageal reflux disease (n=15, 13.5%), functional dyspepsia (n=65, 58.5%) and upper GI malignancies (n=9, 8.1%). The relationship between AF and malignancy was statistically significant (p<0.001). Sensitivity of AF was 89% and specificity was 88% in detecting malignancies.

Conclusions
Benign conditions of upper GI tract accounts for dyspepsia in >90% of patients. AF seems to be having satisfactory validity as a screening tool for malignancies. Dyspeptic patients with AF should undergo early endoscopic study to exclude malignancy. More research must be encouraged in this regard.

OP 19
SEROPOSITIVITY OF H. PYLORI IN CARCINOMA
OP 20

APPROPRIATENESS OF PCR AND HISTOLOGY IN DIAGNOSING HELICOBACTER PYLORI INFECTION IN CLINICAL SAMPLES

SM Buharideen1,2, Sulochana Wijetunge1, F Noordeen3, Rasika Kotakadeniya3, AKBBTB Samarasingha3, A Dharmapala2, KB Galketiya2, AMSB Abeykoon2

1Department of Pathology, Faculty of Medicine, University of Peradeniya
2Department of Microbiology, Faculty of Medicine, University of Peradeniya
3Department of Surgery, Faculty of Medicine, University of Peradeniya

Introduction
Helicobacter pylori is regarded as a common cause of chronic gastritis and gastric ulceration, pathogenesis of which depends on the organism's ability to produce gastric mucosal inflammation. Of the H. pylori diagnostic methods, polymerase chain reaction (PCR) has a high sensitivity and specificity whereas, histology has high specificity and relatively low sensitivity. We conducted the following study to assess the appropriateness of histology and PCR in detecting H. pylori in clinical samples.

Material and Methods
This is a cross sectional study of 205 patients with dyspeptic symptoms and endoscopically apparent mucosal lesions namely, erythema and/or erosions/ulcers. All underwent endoscopic biopsies from the lesions. PCR was performed using HP1/HP2 primer for H. pylori16SrRNA and histology using Hematoxylin & Eosin and toluidine blue stains to assess gastric mucosal inflammation and H. Pylori.

Results
Significantly more patients in case group (97/114) were found seropositive for H. Pylori antigen in contrast to control group (251/372). All of the cases in the present study were in advanced stage. The odds ratio of ever smokers was 2.3 times higher than non-smokers. Male sex and additional salt intake were other significant risk factors. No significant association between H. pylori seropositivity and tumour location was found. It was noted that undifferentiated gastric carcinoma had slightly more association with H. pylori infection. Younger H. pylori-infected patients had been found to be at higher relative risk for gastric cancer than older patients.

Conclusions
Special emphasis should be given to eradicate H. pylori infection while treating patients of peptic ulcer diseases. Further study with more sound study design in the regard is warranted.
histology positive cases showed gastric mucosal inflammation and 2/8 only PCR positive cases had inflammation.

**Conclusion**

H. pylori prevalence in the sample is low, 14 (6.8%) with either test method, indicating that the symptoms in the majority are not due to H. pylori infection. Although PCR had a significantly higher H. pylori detection rate than histology, 75% (6/8) of only PCR positive cases did not show any gastric mucosal inflammation. A H. pylori infection not associated with mucosal inflammation is unlikely to produce the observed symptoms and endoscopic changes. Since PCR is a highly sensitive method it can detect very low virulent forms in small numbers which are not capable of producing gastric inflammation and clinically significant disease. Histology appears to represent more clinically significant disease. Therefore, histology may be more appropriate than PCR, in diagnosing H. pylori infection, in clinical samples.
Poster Presentations

PP 01
LAPAROSCOPIC ADRENALECTOMY FOR ADRENAL TUMOURS IN ADULTS – INITIAL EXPERIENCE
BD Gamage, N Harivallavan
Department of Surgery Faculty of Medical Sciences, University of Sri Jayewardenepura

Introduction
In the management of adrenal tumors the open adrenalectomy has almost being replaced by the laparoscopic adrenalectomy. Currently this has become the gold standard surgical treatment for most adrenal tumours. The benefits of the laparoscopic adrenalectomy such as decreased hospital stay, shorter recovery time and improved patient satisfaction are widely accepted. The aim of this study was to present our experiences on laparoscopic adrenalectomies done during the period of 2013 to 2015.

Material and Methods
Retrospective analysis of the data of all the laparoscopic adrenalectomies done by a single surgeon was performed.

Results
Total number of patients underwent laparoscopic adrenalectomy was nine (9). There were five males and 4 females. The age range was 21-62 years. Five of these patients had presented with uncontrolled blood pressure while 3 others had come with loin pain and only one case presented with hypokaleamia. Four of them had adrenal tumour on the left side while five had right side tumours. All patients were managed with lateral trans peritoneal approach while all of them needed 4 port access with three 5mm ports and one 10mm port. Blood loss was minimal in all cases and no complications were noted. None were converted to open surgery while all had shorter hospital stay (mean days=2). Out of nine, 6 had adrenocortical adenoma, 2 had phaeochromocytoma and one had an inflammatory pseudo tumour.

Conclusion
Laparoscopic adrenalectomy gives better outcomes when compared to open adrenalectomy, in blood loss and short hospital stay and cosmetic effects.

PP 02
A PROSPECTIVE STUDY TO ASSESS THE INCIDENCE OF ADRENAL METASTASES IN RENAL CELL CARCINOMA
Sutharshan Kugadas, Suranga Nuwan Wijayarathna, Rehan Gamage, Kalhar Indika, Maddumage, Asanka Weligamage, Mohamed Ishak, Anuruddha M Abeygunasekera
Colombo South Teaching Hospital, Kalubowila, Sri Lanka.

Introduction
Controversy remains over whether adrenalectomy should be performed concomitantly during surgery for renal cell carcinoma (RCC) especially after the advent of nephron sparing surgery.

Objectives
To assess the incidence of metastases in the adrenal gland in patients with renal cell carcinoma who undergo surgery and the possibility of its prediction to avoid unnecessary removal of it.

Material and Methods
All patients undergoing surgery for renal cell carcinoma at a single urology unit were studied prospectively from January 2009 to April 2015. The preoperative CT findings, tumour size, location of the tumour and histopathological findings were recorded.

Results
149 patients (from a cohort of 154) underwent surgery for renal cell carcinoma. 144 patients had simultaneous adrenalectomy done. Three patients had CT evidence suggestive of adrenal metastases. Two of them had histologically proven metastases. Another patient who had a mass felt in the adrenal gland intraoperatively was confirmed to have metastases. All other adrenal glands removed were normal histologically.
Conclusions
Only 2% of patients with RCC have adrenal metastases. Those patients with CT evidence and positive intraoperative palpation predicted the presence of adrenal metastases. Hence normal adrenal gland in CT and at digital palpation intraoperatively makes removal of the adrenal gland unnecessary during surgery for RCC.

PP 03
RATES OF ENDOThermal HEAT INDUCED THROMBOSIS AFTER RADIOFREQUENCY ABLATION OF SAPHENOUS VEINS AND THEIR MANAGEMENT
Brajesh Singh, S. K. Agarwal
SGPGIMS, Lucknow, India

Introduction
Radiofrequency ablation (RFA) of the saphenous vein has become one of the preferred treatments for treating saphenous vein reflux. Initially it showed to have low incidence of postoperative thrombosis of the femoral or popliteal vein adjacent to the treated GSV or SSV. Later clinical experience suggested that the actual incidence of this event is higher and it was subsequently termed endothermal heat-induced thrombosis (EHIT).

Material and Methods
We reviewed the pre and post treatment ultrasounds of patients undergoing RFA from 2010 to 2013 to determine the frequency of EHIT in patients we had treated and then graded them according to a previously published classification.

Results
There were 376 veins treated in 132 men and 244 women. CEAP class for these patients was 1 (0), 2 (206), 3 (45), 4 (75), 5 (19), and 6 (31), respectively. The GSV was treated in 355 patients, the SSV in 15, and both were treated in 6 patients. EHIT occurred in 20 of the legs treated (5.31%). The EHIT in the femoral vein were of level 3 (2), 4 (5), 5 (10), and 6 (2), respectively. One patient developed EHIT in the popliteal vein after RFA of the SSV. Treatment for the EHIT consisted of observation (11), anticoagulation (7), antiplatelet therapy (1), and nonsteroidal anti-inflammatory agents (1). Duration of therapy was usually 1 week. No pulmonary emboli occurred in any of these patients. The EHIT resolved completely in all patients.

Conclusions
EHIT after RFA occurs frequently and mainly consists of low-risk level 3, 4, and 5 deep vein thrombosis. The risk of pulmonary embolism is low and the EHIT typically resolves after 1 week. It can be treated with a short course of antiplatelet or anticoagulation therapy, although observation appears to be sufficient as well for lesser grades of EHIT.

PP 04
ASSESSMENT OF TOE PRESSURE CHANGES IN HEALTHY YOUNG ADULTS WITH OCCLUSION OF PEDAL VESSELS: A DYNAMIC ASSESSMENT OF ANGIOSOMES
CW Weerasinghe, HPW Laksiri, I Bulathsinhala
Anuradhapura Teaching Hospital, Sri Lanka

Introduction
Angiosome studies performed in cadavers have demonstrated, toes are predominantly supplied by the posterior tibial artery (PT). Therefore, the PT is used as the vessel of choice for directed revascularization in ischemic toe ulcers. The aim of this study is to find out whether the Dorsalis Pedis (DP) or the Posterior PT contributes more to the toe pressure in normal physiological conditions.

Material and Methods
Consented 35 healthy young adults with no clinically identifiable co-morbidities were studied. The toe pressure (TP) measurements were done using an arterial Photoplethysmography (PPG) and digit cuff. TP of the 1st 3 toes on both feet were measured without compressing the DP and PT and compressing DP and PT in isolation. Toe-toe pressure index (TTPI) was calculated dividing toe pressure with compression of either DP or PT by toe pressure without compression. TTPI of less than 0.9 was considered significant. Chi square test was used to calculate the significance.
Results
Percentage of TTPI which is less than 0.9 was significantly higher with the reading observed by compressing the DP (52.5%) in comparison to the readings observed by compressing the PT (43.6%) (p=0.03). If the TTPI cutoff is reduced to 0.7 the difference between groups loses significance.

Conclusions
The data suggest that contrary to the anatomical based angiosome studies, contribution from DP to the perfusion of the toes is significantly higher than that of the PT. Further evaluation is needed to explain the difference between our findings and cadaver based anatomical findings on the angiosome concept.

PP 06
CLINICAL PRESENTATIONS OF LOWER LIMB VARICOSE VEINS IN A PERIPHERAL SETTING: DO THEY PRESENT EARLY?
KS Bulathsinhala
General Hospital Kalutara

Introduction
Varicose veins (VV) are a routinely encountered problem in surgical clinics. Their presentation varies from pure cosmetic, symptomatic to active ulceration. Improved socioeconomic status in modern society have resulted more patients with VV presenting with cosmetic concerns and mild symptoms. These patients were previously overlooked in busy peripheral surgical units.

Materials and methods
Patients presenting with VV, as first visits to a single surgical clinic at GHK from 1st October 2014 to 31st March 2014 were analyzed. Clinical presentations were staged according to CEAP classification.

Results
Seventy two patients (40 females: 32 males) and 124 limbs with VV were studied. Mean age of study population was 54 years (18-78). Mean duration of VV at presentation was 3.8 years (3 months -20 years).

Among all first clinic visits 72(19.4%) were due to VV. Bilateral VV(52/72) were more common than unilateral VV(20/72). C1-C3 categories were seen in 65%(81/124) of limbs.C4, C5 and C6 presentations were seen in 19.4%, 5.6% and 9.7% limbs respectively. One patient in C6 category had biopsy proven squamous cell carcinoma. Mean duration of active ulceration was 4.8 years (3 months -20 years).

In C1- C3 category 62.96% were females and mean age was 46 years, whilst among C5-C6 category, mean age was 58 years and 42.1% were females.

Conclusion
Majority of the study group presented with early varicose veins disease. Patients in C1-C3 category were predominantly females and of young age. Even in a peripheral setting there is increased awareness and early health seeking pattern for VV.

PP 06
ARTERIO VENOUS FISTULA CONSTRUCTION - A SINGLE UNIT EXPERIENCE
A Arulprashanth, YP Lankeshwara, MP Hettiarchchi, A Weerasekara, WLADA Prasanna, MRN Cassim, SM Wijeyaratne
University surgical unit, Faculty of Medicine, University of Colombo

Introduction
Surgical construction of autogenous arteriovenous fistula (AVF) remains the commonest method of venous access for dialysis. We present outcomes of AVF surgery performed by the university vascular unit, Colombo between May 2014 and April 2015.

Material and Methods
66 procedures performed on 56 patients were retrospectively analyzed in relation to demographic factors, and outcomes. Patients were followed up for 6 months.

Results
The mean age of patients was 46 (range 21-80) and 79% were males. Out of the 56(85 %) primary procedures,
engaged in routine daily activities. While majority had their lower limb affected (32, 84.2%), upper limb, both upper and lower limbs and perineum were affected in 1 (2.6%), 1 (2.6%) and 4 (10.5%) consecutively. Twenty one (55.5%) had features of sepsis.

Patients were treated with a combination of antibiotics mostly (22, 57.9%) including carbapenems, cephalosporins, macrolides according to sensitivity. All patients needed inward intravenous antibiotics ranging from 5 to 68 days, mean being 29.78 days. Six (15.8%) had some form of amputation. Twenty seven (71.05%) received skin grafts. Six (15.8%) patients got contractures. Mean hospital stay was 39.8 days. Six patients (15.8%) died with sepsis and complicated medical problems.

Conclusion
Necrotizing fasciitis causes a significant morbidity and mortality ($X^2 = 15.086, p = 0.01$). Therefore, it is necessary to develop guidelines to assess, diagnose and treat patients with necrotizing fasciitis promptly.

PP 08
HEALTH SEEKING BEHAVIOR AMONG PATIENTS WITH LOWER LIMB CELLULITIS – ARE DIABETIC PATIENTS BETTER INFORMED?
P Bandarage, NC Gamhewage, KV Ruwanpura, NW Jayasekara, MRM Ziyard
District General Hospital Negombo.

Introduction
Cellulitis, a non-necrotizing acute bacterial infection of the skin and subcutaneous tissues, is a common presentation with a significant burden on health service. Early identification improves outcome, especially in diabetics. The study assesses the patient delay andprehospital management in view of identifying possible improvements.

Material and methods
Study was conducted in District General Hospital Negombo, from February to May 2015 on consecutive patients treated inward for lower limb cellulitis. Patient’s choice of initial prehospital treatment and
patient delay was assessed. Subgroup of patients with diabetes was identified and their statistics were compared with the total population. Mean duration of stay for each group was analyzed.

Results
Total population was 72 of which 33.3% were diabetics. Mean patient delay was 4.1 days. This was 4.88 days among diabetics and 3.85 in nondiabetics, a statistically insignificant difference (P = 0.0859). Thirty-eight (52.7%) had got antibiotic treatment from GPs (43.0%) and OPD (9.7%). Three opted ayurvedic treatment. Mean hospital stay was 3.07 days with no statistically significant difference between subgroups.

Conclusions
A significant proportion of patients were diabetics showing longer patient delay contrary to early presentation expected. This implies a deficiency in the patient education on diabetic foot care. Of all patients who needed inward treatment, 54% were pretreated with oral antibiotics. Reasons for treatment failure and doctor delay in outpatient practice should be further assessed.

PP 09
BILE REFLUX AND QUALITY OF LIFE AFTER MODIFIED RETROCOLIC POSTERIOR GASTRIC GASTROJEJUNOSTOMY IN WHIPPLE PROCEDURE
RWMAL Rajapaksha¹, CAH Liyanage¹, SJDS Hewavisenthi², SK Liyanage³, LMPM Bandara¹, RC Siriwardana¹
¹Hepato Pancreatico Biliary and Liver Transplant Unit, North Colombo Teaching Hospital, Sri Lanka.
²Department of Pathology, Faculty of Medicine, University of Kelaniya, Sri Lanka.

Introduction
Perioperative outcome of Whipple surgery has greatly improved. Quality of life has become an important issue in long-term survivors. Delayed gastric emptying and bile reflux are common concerns. Modified retrocolic posterior gastric gastrojejunostomy with mesocolic stich has been unit’s standard practice. Study was designed to assess macro and microscopic bile reflux and dyspepsia related quality of life in long-term survivors.

Material and Methods
Out of 42 patients operated from June 2012, twenty long-term survivors were selected after excluding once with recurrence and ones who had chemotherapy during last six months. All underwent gastroscopy. Macroscopic bile reflux was grouped in to four categories. Six gastric biopsies were taken from standard sites. Microscopic bile reflux index (BRI) was calculated in stained specimens. BRI score of more than 14 was considered significant. Validated Nepean dyspepsia index-short form (NDI-SF) was used to assess the severity of dyspepsia related quality of life and compared with age and gender matched control.

Results
The median age was 48.5 years (21-69). Median survival of the group was 37 months (6-40). Endoscopically, 18/20 (90%) had macroscopic bile reflux (83.3% yellowish bile lake, 16.7% greenish bile lakes). None had stomal ulcers or macroscopic inflammation. Mean Bile reflux index score was 13.22 (SD: 9.46). Mean dyspepsia score of Whipple group was 23.1 (SD 8.88). In controls, mean dyspepsia score was 20 (SD 8.2), showing no significant difference (p =0.245).

Conclusion
Though there was macroscopic bile reflux, clinical symptoms and microscopic changes were minimal. Modified technique had good long-term results.

PP 09
MINIMAL ACCESS SURGERY (MAS) FOR COMPLICATIONS OF PANCREATITIS
S Sopan, BAM Premadasa, AHMAH Abayasinghe, RAA Shaminda, LAK Samarasekara, KB Galketiya, V Pinto
Faculty of Medicine, University of Peradeniya.

Introduction
Drainage of pancreatic pseudo-cysts and splanchnic nerve ablation for pain relief in chronic pancreatitis
are possible with MAS. The feasibility, safety and outcome are analyzed.

**Material and Methods**

A retrospective analysis of patients treated for above conditions since 2012 January was done. For pancreatic pseudo-cysts a comparison of open, radiological, laparoscopic and endoscopic treatment was done. In patients with chronic pancreatic pain not responding to pharmacological therapy bilateral thoracoscopic splanchnicectomy was performed. Time of procedure, blood loss, conversions and outcome were analyzed.

**Results**

**Drainage of pseudo-cyst (6 patients)**

<table>
<thead>
<tr>
<th></th>
<th>Open cystogastrostomy</th>
<th>Laparoscopic cystogastrostomy</th>
<th>Endoscopic cystogastrostomy</th>
<th>Ultrasound guided aspiration</th>
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<tbody>
<tr>
<td>Number of patients</td>
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<td>2</td>
<td>3</td>
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</tr>
<tr>
<td>Average time (hours)</td>
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<td>4</td>
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<td>Blood loss (ml)</td>
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<td>24</td>
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<td>Nil</td>
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<tr>
<td>Time taken to commence oral feeding (hours)</td>
<td>96</td>
<td>48</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Hospital stay (days)</td>
<td>9</td>
<td>7</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

The patient following US drainage had a recurrence which was drained with endoscopy.

**Thoracoscopic splanchnicectomy**

<table>
<thead>
<tr>
<th>a 5/20 time (min)</th>
<th>Blood loss (ml)</th>
<th>Conversions</th>
<th>Immediate pain relief</th>
<th>Discharge from hospital</th>
<th>Pain relief at 1m</th>
<th>6m</th>
<th>12m</th>
<th>1-2 days</th>
<th>Good</th>
<th>Tract</th>
<th>Tract</th>
</tr>
</thead>
<tbody>
<tr>
<td>60min</td>
<td>nil</td>
<td>nil</td>
<td>good</td>
<td>1-2days</td>
<td>Good</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Conclusions**

For pancreatic pseudo-cysts endoscopic drainage provides the least morbidity allowing early discharge. Laparoscopic drainage is preferred over open for patients who cannot be treated by endotherapy. Ultrasonic drainage may lead to recurrence.

Bilateral thoracoscopic splanchnicectomy provides good pain relief in chronic pancreatitis. It can be done in an acceptable time with no significant morbidity allowing early discharge.

**PP 11**

**SUCCESSFUL USE OF NAGI STENT FOR THE MANAGEMENT OF PANCREATIC PSEUDOCYST**

Wijerathne T¹, Pathirana A¹, Manawasinghe DS², De Silva WSL², Herath Da¹

¹Department of Surgery, Faculty of Medical Sciences, University of Sri Jayewardenepura
²University Surgical Unit, Colombo South Teaching Hospital

**Introduction**

ANNUAL ACADEMIC SESSIONS 2015, THE COLLEGE OF SURGEONS OF SRI LANKA
Out of the management options of Pancreatic pseudocyst, usage of self-expandable metal stents (SEMS) are preferred currently due to less invasiveness and the superior long term results. Newly designed fully covered trans-mural SEMS are specially made to avoid stent migration and tissue in growth with high success rates. We report three cases of pancreatic pseudocysts managed with Korean made commercially available NAGI stent with both short term and long term success.

Material and Methods
Patient A: A 24 year old male with, a large pseudocyst measuring 14cm x 8cm x 17cm in size following hemorrhagic pancreatitis

Patient B: A 63 year old female, with a 14cm x 10cm x 16cm size pseudocyst complicating chronic pancreatitis
Patient C: A 40 year old male with chronic pancreatitis and a pseudocyst of 12cm x 10cm x 13cm in size

All three patients underwent side viewing endoscopy and the suitable site for cyst drainage was identified. Patient A & B had cyst-gastrostomy and patient C had a cyst-duodenostomy as the cyst was found to be immediately lateral to the duodenum. All three were managed with NAGI stents along the cyst-gastrostomy and cyst-duodenostomy sites.

Results
There were no any intraoperative or post-operative complications encountered in all three patients. All had complete symptomatic relief and radiological resolution of cysts. Stents were removed in all three patients after complete resolution was found ultrasonically.

PP 12
MINIMAL ACCESS SURGERY FOR PANCREATIC MALIGNANCIES
G Kapilan, AHMAH Abayasinghe, BAM Premadasa, BK Dassanayake, AS Samarasinghe, NR Kumarasinghe, KB Galketiya, V Pinto
Faculty of Medicine, University of Peradeniya

Introduction
Pancreatico-duodenectomy, Distal pancreatectomy and cholecysto-jejunosomy performed by Minimal access surgery (MAS) reduces operative morbidity. Feasibility and safety of MAS need evaluation.

Material and Methods
A retrospective analysis of patients with pancreatic malignancies treated with MAS, from 2012 January was done. The indices recorded were time taken, blood loss, conversion to open procedure and post-operative recovery.

Results
There were 20 Laparoscopic assisted Pancreatico-duodenectomy, 3 Laparoscopic assisted Distal pancreatectomy, 94 ERCP and stent insertion for obstructive jaundice, 3 Laparoscopic cholecysto-jejunosomy. In Laparoscopic assisted Pancreatico-duodenectomy 18 were converted to open at various stags due to lack of progress or bleeding. In 2 Complete resection was followed by minilaparotomy for the anastomosis. Post operative outcome was as follows. The ICU stays 1-5 days. Mortality-1 patient after 20days, Discharged from hospital-10-30days, Resection margins-clear in all Lymph Node harvest -8-14 days

<table>
<thead>
<tr>
<th>Mean blood loss</th>
<th>Conversions</th>
<th>ICU stay</th>
<th>Discharged from hospital</th>
<th>Resection margins</th>
</tr>
</thead>
<tbody>
<tr>
<td>240min</td>
<td>300ml</td>
<td>Nil</td>
<td>1day</td>
<td>7-9days</td>
</tr>
</tbody>
</table>

94 underwent ERCP and stent insertion. In 30 ERCP failed and required by pass.
3 underwent Laparoscopic cholecysto-jejunosomy with one conversion

Conclusions
Laparoscopic assisted pancreatico-duodenectomy is feasible and safe but has a long learning curve with conversions to open at various stages of the dissection. Laparoscopic distal pancreatectomy is less complex and is preferred over open in our unit For palliation of obstructive jaundice ERCP and stent insertion is the gold standard and for failures
PP 13
ENDOSCOPIC DRAINAGE OF PANCREATIC PSEUDOCYSTS AT A TERTIARY CARE CENTRE IN INDIA
Hemant K Nayak, Sandeep Kumar, Namita Mohindra, Kundan Kumar, Samir Mohindra, Vivek Anand Saraswat
Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow 226014, India

Introduction
Endoscopic drainage is a minimally invasive non-surgical treatment for pancreatic pseudocysts (PPC). We evaluated results of endoscopic drainage of PPC and factors associated with successful drainage.

Material and Methods
Retrospective review of prospectively maintained records of consecutive patients who underwent endoscopic drainage of PPC between 2002-2014.

Results
77 patients (56 males; median age, 36 y) underwent endoscopic drainage of PPC with technical success rate of 98%. Pseudocysts drained were symptomatic, large [median volume, 582 mL (range, 80-2706)] and located mainly in head & body region; infected - 49%, with symptoms duration of 11 weeks (range, 8-68). Drainage procedures included cysto-gastrostomy (78%), cysto-duodenostomy (13%), trans-papillary drainage (3%), multiple route drainage (6%), with additional endoscopic naso-cystic drainage (ENCD) in 41(59%). 8 patients were lost to follow-up. 69 patients [77% men; median age, 35 y (range, 15-73)] were followed up for median of 28 mo (range, 2-156). Complications occurred in 21 patients (30%): stent occlusion and migration (13), bleeding (5), perforation (2), and death in 1. Repeat endoscopic procedure needed in 19 (sepsis-16, recurrence-3). Non-endoscopic treatment was needed in 8 (12%): incomplete cyst resolution (3), recurrence (2) and complications, bleeding-1 and perforation-2.

Conclusions
Endoscopic drainage was a successful definitive treatment in 60 (88%). Infected PPC were associated with poorer outcome [OR 0.016; 95% CI 0.001-0.037], placement of ENCD lead to better results [OR 11.85; 95% CI 1.03-135.95].

Endoscopic drainage is an effective and safe treatment modality for PPC and offers a definitive solution in more than 3/4 of the cases.

PP 14
FACTORS ASSOCIATED WITH CONVERSION OF LAPAROSCOPIC CHOLECYSTECTOMY TO OPEN CHOLECYSTECTOMY- A SINGLE UNIT EXPERIENCE
LSA Hewage, HKC Lakmal, S. Hariprasath, S. Jeyartnam
Teaching Hospital, Jaffna
National hospital of Sri Lanka

Introduction
Laparoscopic cholecystectomy (LC) is the main stay of treatment for gall bladder disease. There’s a substantial proportion of patients in whom laparoscopic approach cannot be successfully performed and for whom conversion to open surgery is required. Knowledge of the rate and impact of the underlying reasons for conversion could help surgeons during preoperative assessment and improve the informed consent of patients.

Material and Methods
A retrospective descriptive cross sectional institutional study was carried out of patients who underwent conversion of LC to open cholecystectomy (OC). Data was collected via all accessible BHTs in single surgical unit. Basic epidemiology, risk factors and causes for conversion to open procedure was analyzed.

Results
Out of 291 patients who underwent LC, 51 converted to open. Majority were females (n=30, 58.8%) and between 41-50 years age group. 10 patients had past abdominal surgeries. Adhesions were the commonest intraoperative finding followed by instrument failure. These intraoperative difficulties resulted in failure in critical view of safety in 64.7%. Inability to dissect gall bladder from liver bed (13.7%), instrument failure (13.7%) and hemorrhage (7.8%) were the other main
causes.

Conclusions
Compared to international studies we have a significantly higher rate of conversion of LC to OC. We suggest further studies to analyze the probable factors related to high conversion of LC.

PP 15
IS THERE A PLACE FOR CONVERSION IN LAPAROSCOPIC CHOLECYSTECTOMY?
WMSB Thilakarathna, BGN Rathnasena, MGSR Kumara, MSE Karunadasa
National Hospital of Sri Lanka

Introduction
Laparoscopic cholecystectomy (LC) has become the procedure of choice for routine gallbladder removal. However it is customary to convert it to an open procedure when the anatomy is not clear, when there are adhesions and when complications encounter. Also it is advisable to keep a low threshold for such conversions and the worldwide conversion rate is around 5%-10%. In the current study we analyzed the experience of LC conversion rate in a tertiary care hospital in Sri Lanka, along with the observed indications for LC and complications.

Material and Methods
A retrospective and prospective data base analysis was done among 204 cases of LC carried out at Ward 27/38 at National Hospital of Sri Lanka, Colombo from 2010 to 2015.

Results
Of the 204 patients, 165 were women (80.88%) with a mean (SD) age of 48.6 years and 39 were men (19.11%) with a mean age of 56.48 years. The female-to-male ratio was 4:1. Acute Cholecystitis-79(38.72%) and Billiary Collic-88(43.14%) were the commonest indications for surgery and of the total-8 patients (3.92%) had common bile duct stones which were extracted by ERCP. There were another 14 patents who presented with obstructive jaundice due to common bile duct stones. They underwent laparoscopic common bile duct exploration with cholecystectomy. Only 3 patients (1.47%) had to undergo conversion during the five year study period and is a remarkably low conversion rate compared to published literature. Indications for conversion in 2 patients were dense adhesions to the surrounding structures and in one patient was the bile duct injury due to abnormal anatomy. Three abdominal ports were used during most of the LCs -146(71.57%) and the gall stone spill during the surgery was the commonest complication-14 patients (6.86%) Most of the patients-111(54.41%) was discharged on the post-operative day 2.

Conclusions
Conversion rate in LC during modern era of laparoscopic surgery is very low. When performed by experienced surgeons with adequate precautions, complications could be minimized and almost all the complications can be managed laparoscopically without converting to an open cholecystectomy.

PP 16
Laparoscopic subtotal cholecystectomy; a safe alternative to conversion
A S D Liyanage, S B P Thalgaspiitiya
University surgical unit, Teaching Hospital Anuradhapura. Sri Lanka.

Introduction
Despite its place as “the gold standard treatment” in symptomatic gallstone disease; laparoscopic cholecystectomy (LC) still has a significant conversion rate. Conversion does not always avert easy operation. Significant proportion of converted cases ends up having subtotal cholecystectomy. Open surgery carries significant morbidity and is not always safe, especially in difficult gall bladders. Laparoscopic subtotal cholecystectomy (LSC) is a safe alternative to conversion and helps entertain the benefits of minimal access surgery.

Objective
The aim of this study is to find out the safety and
effectiveness of LSC in dealing with difficult gall bladders.

Material and Methods
We analysed prospectively maintained database on all LSCs performed at the University surgical unit of Teaching Hospital Anuradhapura over a period of 18 months (from January 2014 to June 2015). Short-term outcomes including length of hospital stay, postoperative morbidity and 30 day readmission rates were analysed.

Results
Total number of LSCs was 9/68 (13.2 % of all LCs). Male:female ratio was 1.25:1. Mean LOS was 3.4 days. One patient had postoperative bile leak (11%), which was settled without ERCP. Another patient had postoperative ERCP for retained stones and readmitted within 30 days of discharge from the hospital. Two patients (22%) had SSI including cellulitis around the drain site.

Conclusions
LSC is a safe and effective alternative to conversion and should be performed liberally in dealing with difficult gall bladders.

PP 17
Gallstone disease; A different disease in a subpopulation of Sri Lanka. A Study to determine the prevalence of different types of gallstones in a sub population of Sri Lanka
De Silva W.S.L, Amarasinghe N.S, Kollure S.K, Siriwardane S.C, Hemachandra S.G.H.D

Introduction
This study was carried out to determine the prevalence of different types of gallstones in Sri Lanka and to identify the association of known risk factors to the formation of a particular type of stone.

Material and Methods
Gallstones were harvested from a continuous sample of 60 patients who underwent cholecystectomy for symptomatic gallstone disease in Colombo, Sri Lanka over a period of one year. Gallstones were analyzed physically and then chemically, using the wet chemistry method and categorized into the three major types according to the revised Japanese classification system.

Results
55.3%(n=32) had pigmented stones, 38.3% (N = 23) had mixed cholesterol stones and only 8.3% (n=5) had pure cholesterol stones. Advancing age is significantly associated with the occurrence of pigment stones (p = 0.003). Majority of the study population were overweight (36.7%) or obese (56.7%), but no correlation between the BMI and the stone type was observed. Serum total cholesterol was significantly higher in patients with mixed cholesterol stones (p = 0.000). No positive correlations were observed between the type of stone and known co-morbidities and any demographic variables except age.

Conclusions
Pigment stones are the commonest stone type found in the study population and the prevalence of it is associated with advancing age. Mixed cholesterol stones were associated with high serum total cholesterol levels. Pure cholesterol stones are very rare in the study population.

PP 18
LAPAROSCOPIC CHOLECYSTECTOMY(LC) PERFORMED IN A SINGLE SURGICAL UNIT OF TH-KURUNEGALA- A CASE FOR FURTHER OPTIMISATION OF THE SERVICE
Rubecka S, Udayakumara EAD, Fernando T, Wijerathne GDSR, Gajanthan K
Teaching Hospital Kurunegala.

Introduction
Gallstone disease is a major health concern worldwide. LC has emerged the gold standard in its management.
Materials and Methods

Hundred and twenty nine patients undergoing LC in a single surgical unit at TH-Kurunegala over 18 months period, were included in a prospective observational study.

Results

Hundred and twelve (86.8%) were females and 17 (13.2%) were males. Majority (64, 49.6%) were in 40-59 year age group. Sixty four (49.6%) had biliary colics, while 42 (32.6%) had associated complications. Intraoperatively, most (96, 74.4%) of the patients had multiple gall stones, 26 (20.3%) had cholecystitis and 1 had Mirizzi syndrome. Abnormal anatomy was seen in 14 (10.9%) patients. Fifty nine (45.7%) were difficult surgeries according to accepted criteria. One patient had a common bile duct injury. Four (3.1%) were converted to open surgery. One developed paralytic ileus postoperatively. Mean operative time was 80.38 minutes. Majority (83, 64.3%) had the drains removed on day 1. Eighty two (63.5%) were pain free, ambulant and tolerating oral diet 8 hours after surgery. Sixty three (48.9%) were discharged on day 1. Two readmitted due to abdominal pain and a port site hernia. Difficult cholecystectomies had no significant correlation with duration of surgery, hospital stay and complications.

Conclusions

Carefully planned and executed LC on cautiously selected patients in a day care surgical set up could be a safe possibility with improved learning curves, rendering multiple benefits to the patient, the family and economy in our overburdened healthcare system.

PP 21

HISTOPATHOLOGICAL ASSESSMENT OF ETIOLOGY OF

Materials and Methods

Hundred and twenty nine patients undergoing LC in a single surgical unit at TH-Kurunegala over 18 months period, were included in a prospective observational study.

Results

Hundred and twelve (86.8%) were females and 17 (13.2%) were males. Majority (64, 49.6%) were in 40-59 year age group. Sixty four (49.6%) had biliary colics, while 42 (32.6%) had associated complications. Intraoperatively, most (96, 74.4%) of the patients had multiple gall stones, 26 (20.3%) had cholecystitis and 1 had Mirizzi syndrome. Abnormal anatomy was seen in 14 (10.9%) patients. Fifty nine (45.7%) were difficult surgeries according to accepted criteria. One patient had a common bile duct injury. Four (3.1%) were converted to open surgery. One developed paralytic ileus postoperatively. Mean operative time was 80.38 minutes. Majority (83, 64.3%) had the drains removed on day 1. Eighty two (63.5%) were pain free, ambulant and tolerating oral diet 8 hours after surgery. Sixty three (48.9%) were discharged on day 1. Two readmitted due to abdominal pain and a port site hernia. Difficult cholecystectomies had no significant correlation with duration of surgery, hospital stay and complications.

Conclusions

Carefully planned and executed LC on cautiously selected patients in a day care surgical set up could be a safe possibility with improved learning curves, rendering multiple benefits to the patient, the family and economy in our overburdened healthcare system.
**VALVULAR HEART DISEASE FROM SURGICAL SPECIMEN IN A COHORT OF PATIENTS FROM KANDY.**

LAPD karunarathne, K Gnanakanthan, RN Waduge, PHMRC Herath, J.D Fernando, PLB Nishantha.

1Cardiothoracic surgical Unit, Teaching Hospital Kandy, Sri Lanka.
2Department of Pathology, University of Peradeniya, Sri Lanka.

**Introduction**

Valvular heart disease (VHD) is a significant health burden worldwide with increasing prevalence but is a poorly researched area locally. The degenerative disease is the common etiology in the western population with predominant aortic valve involvement. The Rheumatic heart disease (RHD) is the most common etiology in the developing world.

**Material and methods**

A prospective non randomized sample containing 83 patients undergoing cardiac valve replacement/repair evaluated with histopathological analysis.

**Results**

Out of 83 patients studied, 12(14.45%) had dual valve disease (DVD); 35(42.16%) had mitral valve disease(MVD) and 36(43.37%) had aortic valve disease(AVD). Eight patients(66.66%) of dual valve disease had by RHD. From the patients with MVD (35), 14 (40%) were diagnosed as RHD and 11 (31.42%) as myxoid degeneration. The male to female ratio of MVD was 12(1):22(1.83).Average age of females was 42.3 while males 47.2years. Out of AVD (36), 15 (41.66%) were calcified aortic valves, 9 (25%) were RHD, 7(19.44%) were congenital bicuspid aortic valve and 4 (11.11%) were myxoid degeneration. The male to female ratio was 21:15. Average ages of males and females were 48.8 and 46.8 respectively.

**Conclusions**

Rheumatic carditis was the most frequent incidental finding which lead to valve deformities with female predominance. Contrary to this, degenerative effects on congenitally affected valves was the major cause for isolated aortic valve involvement. However, rheumatic heart disease remains the commonest aetiology for VHD in developing countries.

**PP 22**

**LAPAROSCOPY IN DIAGNOSTIC DILEMMAS**

Rubecka S, Udayakumara EAD, Fernando T, Wijerathne GDSR, Gajanathan K

Teaching Hospital, Kurunegala.

**Introduction**

Right iliac fossa(RIF) pain not uncommonly baffles the clinician. The suspected aetiology often remains equivocal creating doubts in management lines. A diagnostic laparoscopy often presents an easy way out.

**Materials and methods**

A prospective study of patients undergoing laparoscopies for clinically ambiguous or recurrent RIF pain in a single surgical unit of TH-Kurunegala over 14 months period, comprised 88 patients whose clinical and radiological evaluation left the clinician still guessing.

**Results**

Of 88 patients, 70(79.5%) were females and 18(21.5%) were males. Majority(44,50%) were between 20-40 years of age group, the mean age being 35.5 years. Radiologically appendicular pathology was suggested in 42(47.68%) and gynaecological pathologies in 11(12.5%) of patients with 8(9.1%) being inconclusive. Intraoperatively, 29(32.9%) showed appendicular pathologies, while 28(31.8%) had gynaecological pathologies with 13 (14.8%) being negative laparoscopies. Radiological evidence and intraoperative findings were corroborative only in 35(49.8%) of the patients, males showing a significantly higher corroboration rate (72.22%) than the females(31.4%),(X2 =10.003, P=0.007). Mean operating time was 34.6min. There were no postoperative complications. Majority (75,85.22%) were discharged on postoperative day 1.
Conclusions
There is added difficulty in evaluating RIF pain in females compared to males. Therefore in doubt, when evaluating RIF pain in a female, a diagnostic laparoscopy being, not only diagnostic but also therapeutic, should be considered a worthwhile option. Furthermore while opening up a pathway towards a definitive diagnosis and management, this convenient tool minimizes unnecessary hospital stay and the attendant extra costs.

PP 23
LAPAROSCOPIC COMMON BILE DUCT EXPLORATION (LCBDE), IS IT THE MANAGEMENT OF CHOICE FOR COMMON BILE DUCT STONES?
Karunadasa MSE, Rathnasena BGN, Srineethan S, Kumara MGSR. Thilakarathne B
National Hospital of Sri Lanka

Introduction
Laparoscopic exploration of CBD stones has challenged the role of ERCP. LCBDE is a single stage, single stay procedure with decreased morbidity and mortality. The use of pre-cholecystectomy ERCP is challenged because it’s cost, risk of bleeding(3%), pancreatitis(2%), duodenal perforation (1%) and papillary stenosis(10 to 30%) damage to ampulla of Vater and failure of ERCP invariably end up in surgical exploration.

Material and Methods
We have started performing LCBDEs in January 2013. Procedure were done using 4 or 5 ports(two 10mm and three 5mm ports). We used Trans ductal approach through the supraduodenal CBD. Stone extraction done with standard laparoscopic forceps, by 5f vascular forgarty catheter, domia basket extraction with the guidance of choledochoscope. We routinely placed a T-tube. T tube was allowed for free drainage and T-tube cholangiogram was done on the post operative 10th day prior to removal.

Results
LCBDE was performed in 14 patients. Ten out of 14 were females. Age range from 28-84 yrs with a mean age of 59 years. Five of them had previous ERCPs and stenting(two had ERCP 3 times). three patients had cholangitis preoperatively. Three out of 14 had biliary sludge in the CBD, among 14, 7 had multiple stones and the other 7 had single stone in the duct system.
One patient had common hepatic duct stone while other 13 had stone/s in the CBD. Average surgical time was 4 hours and 20 mins with a range from 105 mins to 360 mins. Our stone clearance rate is 100%. And none of them experienced any major morbidity or mortality. We were able to discharge All patients on post op day 04-25 with a average stay was 11 days (majority were kept until t tube cholangiogram was done due to social reasons) . Short term follow up (ranging from 25 months to 4weeks) revealed no symptomatic, biochemical or radiological evidence of recurrent CBD stones or other complications.

Conclusions
LCBDE is a safe effective procedure with low morbidity and mortality in the hands of experienced laparoscopic surgeon.

PP 24
HILAR CHOLANGIOCARCINOMA; IS AGGRESSIVELY ANSWERED
LMPM Bandara1, VS Jayarathne1, RC Siriwardana1, NMM Nawarathna2, CAH Liyanage1
1Hepato Pancreatctico Biliary and Liver Transplant Unit, North Colombo Teaching Hospital, Sri Lanka
2Gastroenterology and Hepatobiliary Unit, National Hospital, Sri Lanka

Introduction
Cholangiocarcinoma (CCA) is a malignant disease involving the biliary system with majority occurring in the hilar region. CCA demands prompt management because of its aggressive nature.

Materials and Methods
Patients who presented to Gastroenterology and hepatobiliary unit at NHSL and the Professorial Surgical Unit of NCTH from January 2011 to June 2015 were included in this study. Diagnosis was made by CT imaging, MRCP and ERCP.
Results
Total of 120 patients were diagnosed with CCA. The median age of presentation was 64 years (31-85) with 51.2% being males. Majority of 63 patients (52.1%) of CCA occurred in the hilar region with rest involving the common bile duct.
Out of 63 hilar CCA 44 were classified according to the bismuth classification. 13/44 were type I, 7/44 were type II, 9/44 were of type III and 15/44 were of type IV.
While 5 patients (7.9%) underwent hepatic resection, Majority of 40 patients (63.5 %) were stented with 9 (14.2%) being treated with Radiofrequency ablation (RFA). Survival was significant following surgery (P=0.027). Four patients who underwent surgery are currently followed up at NCTH.

Conclusions
Surgery appears to be the effective treatment for CCA. Aggressive palliation with stenting seems beneficial.

PP 26
POST HEPATECTOMY ADJUVANT TRANS-ARTERIAL CHEMOTHERAPY- A PILOT STUDY
CS Ekanayake, LMPM Bandara, CAH Liyanage, MA Niriella, AS Dassanayake, RC Siriwardena

Introduction
Hepatic micro metastases lead to early recurrence after surgery for hepatocellular carcinoma (HCC). Trans arterial therapy (TAT) without selective embolization may be an effective treatment that induces tumour necrosis. This potential has not been investigated before. This study looks in to the tolerability of TAT in patients after major hepatectomy.

Material and methods
Consented patients were offered trans arterial chemotherapy after normalization of liver functions following surgery. Through the femoral artery, right and left hepatic arteries were selectively cannulated. Doxorubicin 50mg was mixed with 10ml of Lipidol and injected. Post procedure biochemistry and complications were assessed at day 3, 7 and 14 intervals.

Results
11 Patients consented (81% males, median age 61y [range 47y-76y]. There were 7(63.6%) cirrhotics. Four (36.3%) were extended right or left hepatectomies while others were bisegmentectomies. The median time period from surgery to chemotherapy was 25 weeks (range 4-60weeks). Post procedure, 1 (9%) had right hypochondrial pain, 2 (18.1%) had fever, 4(36.3%) had nausea, 2(18.1%) had vomiting within 48 hours. All were discharged at 48 hours. One patient developed a transient bradycardia during procedure. There was no clinical evidence of liver failure. Two patients had three fold rise in transaminase levels at day3 and 7. All recovered by day 14. None of the patients had significant rise in prothrombin time or bilirubin levels.

Conclusions
Post hepatectomy adjuvant trans-arterial chemotherapy is a well-tolerated procedure in the view of short term complications.
surgeons to avoid unexpected complication as these variations have clinical significance during the surgical procedures and in diagnostic clinical neurophysiology. Therefore the aim of this paper was to study the anatomical variations of the MC nerve.

**Material and Methods**

This descriptive cross sectional study was carried out in the Department of Anatomy, Faculty of Medicine, University of Kelaniya. Dissections were carried out on 50 upper limbs of 25 cadavers to record anatomical variations of the MC nerve.

**Results**

MC nerve was present only in 46(92%) upper limbs. Of the 46 upper limbs where the MC was present, one (2%) did not pierce the coracobrachialis. Communications were seen between MC and median nerve in 06(13%) samples of which 1(17%) was proximal and 5(83%) were distal to the point of entry of the MC into the coracobrachialis and in 4(9%) upper limbs MC nerve rejoins with the median nerve.

**Conclusions**

It is evident that significant anatomical variations of the MC nerve exist in our study. These variations emphasize the complexities and irregularities of this anatomical structure with regard to surgical approaches.

**PP 27**


AGPM Padeniya 1, LSS Salgado 1, R Hasan 1, EDPS Fernando 2, RMSG Ranaweera 2, V Abeysuriya 2, AL Karunanayake 2, KA Salvin 2, SASR Siriwardana 2, BMCM Balasooriya 2, AMDK Alahakoon 2

1 Senior Lecturer, Dept. Anatomy, Faculty of Medicine, Ragama, Sri Lanka.
2 Demonstrator, Dept. Anatomy, Faculty of Medicine, Ragama, Sri Lanka.

**Introduction**

The musculocutaneous (MC) nerve commences from the lateral cord of the brachial plexus, passes inferolaterally and pierces the coracobrachialis while innervating it. It then descends between biceps and brachialis muscles, innervating both and continues as the lateral cutaneous nerve of the forearm. Few studies have been done with regard to variations in origin, course, branching pattern, termination and communications of the MC nerve. These variations are important for anatomists, clinicians, anesthetists and surgeons to avoid unexpected complication as these variations have clinical significance during the surgical procedures and in diagnostic clinical neurophysiology. Therefore the aim of this paper was to study the anatomical variations of the MC nerve.

**Discussion**

There was no significant difference in the average operating time between open and LPC (5.2 vs. 5.8 hours) though the average blood loss higher in the open procedure (700ml vs. 260ml). The hospital stay was shorter among the patients who underwent LPC (3.5 vs. 4.2) though it was not statistically significant.

**Conclusions**

Patients who undergo LPC has less trauma and shorter hospital stay.

**PP 28**


Chathu Sahabandu, Nalaka Gunawansa
National Institute for Nephrology Dialysis and Transplantation, Sri Lanka

**Introduction**

Re-do surgery for varicose veins caused by Recurrent Great Saphenous Reflux (RGSR) is technically challenging, associated with higher complication rates. We studied the efficacy of EndoVenous Laser ablation (EVLA) for treatment of RGSR.
Material and Methods
A Prospective comparative analysis (January 2012 through January 2015), of EVLA in RGSR (Group-1) and Primary Great Saphenous Reflux (PGSR); Group-2, all confirmed by duplex imaging. Mean follow up was 18 (6-42) months. They were compared for post-procedure pain on day 01 (visual analog) and return to full functionality. Non-truncal varicosities were treated by microstabs and sclerotherapy in the same sitting. Those with bilateral disease were treated simultaneously unless by patient request. Routine duplex imaging done at 1, 2 and 4 weeks post-operative and as required thereafter.

Results
928 legs in 671 patients were treated with EVLA. Group-1; 198/928 (21%) and Group-2; 730/928 (79%). Mean post-procedure pain scores were comparable in both groups and not significantly different in unilateral / bilateral procedure. There were two cases of partial thrombi extending in to the femoral vein (Group-2), successfully treated by anti-coagulation. Symptomatic thigh bruising was seen (Group-1, 24%) and (Group-2, 21%), p=>0.05. Mean time to return to full functionality was 2 days in unilateral and 3 days in bilateral treatments in both groups (p=>0.05). One patient with partial recanalization of the GSV (Group-2) after 9 months required foam ablation.

Conclusions
EVLA is safe and effective for treatment of RGSR with comparable results to PGSR. It should be recommended as the treatment of choice where available.

PP 29
ANATOMICAL VARIATIONS OF THE COMMON PERONEAL NERVE (CPN) AND THE DEEP PERONEAL NERVE (DPN) IN THE LATERAL COMPARTMENT OF THE LEG: A CADAVERIC STUDY
LSS Salgado, AL Karunanayake, R Hasan, KA Salvin, EDPS Fernando, MSL Ranaweera, AGPM Padeniya, SP Senevirathne, KRKLK Ranaweera
Faculty of Medicine, University of Kelaniya, Sri Lanka

Introduction
The aim of this study is to demonstrate anatomy of CPN and DPN in the lateral compartment and identify high risk area/s which is important in high tibial osteotomy, in total knee arthroplasty, in external fixation of leg and CPN decompression surgery.

Material and Methods
Thirty cadaveric legs (female-14, male-16) were dissected to demonstrate the bifurcation of the CPN and the exit point of the DPN from the lateral compartment. The ethical clearance was obtained.

Results
None of the specimens showed bifurcation of the CPN proximal to the apex of the fibular head. Musculo-aponeurotic fibular arch at the entrance to the fibular tunnel was confirmed in all specimens. The mean distance from the apex of the fibular head to the opening of the fibular tunnel was 28.4mm (SEM±1.4mm). Of 30 specimens respectively 21(70%), 7(23.33%) and 2(6.66%) had bifurcation vertically distal to, on and proximal to the entry point with the average of 8.0mm and 12.0mm from the entry point. Eleven legs had muscular branches of the DPN in the lateral compartment of the leg. The mean exit point of the DPN/its longest muscular branch was observed 66.5mm (SEM±2.6mm) distal to the apex of the fibular head.

Conclusions
Variations of the CPN bifurcation in relation to the fibular tunnel and muscular branches of the DPN in the lateral compartment were observed. From the apex of the fibular head, distance of 25.6mm-71.6mm was identified as the high risk area for surgeries involving in the upper part of the lateral compartment.

PP 30
VALUE OF ALPHA FETO-PROTEIN IN THE DIAGNOSIS OF HEPATOCELLULAR CARCINOMA (HCC) IN A DEVELOPING COUNTRY
T Wijeratne¹, AA Pathirana¹, DA Herath¹, N Harivallavan¹, HD Hiranth¹, W.S.L. De Silva²
¹Department of Surgery, Faculty of Medical Sciences,
University of Sri Jayewardenepura
1University Surgical Unit, Colombo South Teaching Hospital

Introduction
Alpha-fetoprotein is a glycoprotein and is normally produced during gestation by the fetal liver and yolk sac. The serum concentration is often elevated in patients with hepatocellular carcinoma (HCC) and it is the most commonly used tumour marker in HCC. AFP levels >400-500ng/ml are considered diagnostic of HCC. However the diagnosis is frequently made even with lower levels. A significant percentage of patients with HCC will have AFP levels in the normal range. This study was done to determine the value of alpha feto protein levels in the diagnosis of hepatocellular carcinoma in the Sri Lankan setting.

Material and Methods
Retrospective case note analysis of 47 consecutive patients with biopsy proven HCC presenting to a tertiary care centre in Sri Lanka

Results
There were 10 females and 37 males involved in the study. The mean age of females was 62 years and mean age of males was 64 years. 72.3% had features of cirrhosis on imaging: with 66% belonging to Child’s A and 25.5% to Child’s B categories. AFP levels were within normal limits in 59.6%. 28 were heavy alcohol consumers. Cryptogenic cirrhosis was the possible commonest aetiological factor. There was no statistically significant correlation of AFP levels with the state of the liver (p=0.56), tumour burden (p=0.41).

Conclusions
AFP level does not appear to be useful in the diagnosis of HCC, irrespective of the aetiology. A larger study would be necessary to confirm the findings.

PP 32
ANALYSIS OF FAECAL INCONTINENCE FOLLOWING SURGICAL TREATMENT FOR FISTULA-IN-ANO

U Jayarajah, DP Wickramasinghe, DN Samarasekera
Department of Surgery, Faculty of Medicine, University of Colombo, Sri Lanka

Introduction
The goal of treating fistula-in-ano is to achieve complete cure while preventing faecal incontinence. Faecal incontinence can significantly affect the quality of life. This study was aimed to assess the rate and severity of incontinence following surgery.

Material and Methods
Prospective analysis was conducted on 76 patients (males=63, mean age-40.7±11.03). Data on type of fistula, cure, type of treatment and continence were gathered by an interviewer administered questionnaire before and after surgery. Patients were followed up for a minimum duration of 1 year. Cleveland clinic incontinence questionnaire, a validated tool was used to measure incontinence. Associations were established using Chi square test.

Results
Mean follow up duration was 30.13 months(range 12-84) and 84.2% were simple fistulas. Of the patients 77.6%(N=59) had no incontinence after surgery and 22.4%(N=17) had minor incontinence. The mean score of those who had incontinence is 2.11(range 1-4 out of 20). Of those who had incontinence before treatment had significantly higher chance of incontinence after surgery(p=0.000). Seton fistulectomy had higher rates of incontinence. There was no significant association between incontinence with level of internal opening, type of fistula and number of surgeries.

Conclusions
Though considerable proportion had incontinence the severity was low. Identifying the patients with preoperative incontinence is important as they are at a higher risk of deterioration after surgery.
Our study shows that flexible sigmoidoscopy is of value mainly in those over the age of 40 years. Those who are aged < 40 years who are diagnosed to have a lesion on clinical examination and proctoscopy may be treated for the same without endoscopy.

LATERAL INTERNAL ANAL SPHINCTEROTOMY AS A FIRST LINE TREATMENT FOR CHRONIC ANAL FISSURE IN SRI LANKA

NL Weerasinghe, MM Senarathna

Introduction
Chronic anal fissure is very common. Up to 40% of chronic fissures won’t heal with medical treatment alone. Currently Open Lateral Internal anal Sphincterotomy (LIS) is the most useful treatment option. The reported success rate for fissure healing following surgery is about 92%. Risk of fecal incontinence is about 5%. LIS is less commonly performed as a first line treatment in Sri Lanka. Medicinal products are neither easily available nor cheap in Sri Lanka. In this study we tried to find the feasibility of offering LIS as a first line treatment.

Materials and Methods
A retrospective analysis was carried out in 675 consecutive patients presenting with painless bleeding per rectum over a period of 9 years to a tertiary care centre. Those with additional symptoms such as lump at anus, alteration of bowel habits and abdominal pain were not included. All the patients underwent digital rectal examination, proctoscopy and flexible sigmoidoscopy.

Results
Mean age at presentation was 46.2±15.8 years (Male:female=1.51:1). Of those 221 were aged <40 years, while 452 were aged >40 years. Majority (N=355) had haemorrhoids only. Majority (85.8%) did not have additional lesions apart from lesions identified by clinical examination and proctoscopy. Of those aged <40 years, 11.3% had endoscopically benign findings (i.e.polyps-2.3%, inflammatory lesions-8.1%) and 0.5% was malignant, while in >40 years 2.1% had benign synchronous lesions, 0.7% had malignant synchronous lesions, 11.9% had benign findings (i.e.polyps-4.2%, inflammatory lesions-3.1%) and 2.6% had suspicious findings. Only 1 person (0.5%) aged <40 had additional synchronous lesion which was benign.

Conclusions

THE YIELD OF FLEXIBLE SIGMOIDOSCOPY IN THE EVALUATION OF PATIENTS PRESENTING WITH ISOLATED PAINLESS PER RECTAL BLEEDING

U Jayarajah, DN Samarasekera
Department of Surgery, Faculty of Medicine, University of Colombo, Sri Lanka

Introduction
Flexible sigmoidoscopy is routinely done in patients presenting with painless per rectal bleeding, even if an obvious cause is seen on proctoscopy. This is to exclude secondary causes and to detect synchronous lesions. However routine flexible sigmoidoscopy has led to many negative studies.

Materials and Methods
A retrospective analysis was carried out in 675 consecutive patients presenting with painless bleeding per rectum over a period of 9 years to a tertiary care centre. Those with additional symptoms such as lump at anus, alteration of bowel habits and abdominal pain were not included. All the patients underwent digital rectal examination, proctoscopy and flexible sigmoidoscopy.

Results
Mean age at presentation was 46.2±15.8 years (Male:female=1.51:1). Of those 221 were aged <40 years, while 452 were aged >40 years. Majority (N=355) had haemorrhoids only. Majority (85.8%) did not have additional lesions apart from lesions identified by clinical examination and proctoscopy. Of those aged <40 years, 11.3% had endoscopically benign findings (i.e.polyps-2.3%, inflammatory lesions-8.1%) and 0.5% was malignant, while in >40 years 2.1% had benign synchronous lesions, 0.7% had malignant synchronous lesions, 11.9% had benign findings (i.e.polyps-4.2%, inflammatory lesions-3.1%) and 2.6% had suspicious findings. Only 1 person (0.5%) aged <40 had additional synchronous lesion which was benign.

Conclusions
LIS is feasible option as a first line treatment for chronic anal fissure. But more numbers and well-designed comparative studies needed to confirm this observation.

Conclusions
TRUS-P is a very effective and a safe procedure to obtain histological confirmation of prostate pathology.

PP 35
INITIAL EXPERIENCE AND OUTCOME OF TRUS GUIDED PROSTATE BIOPSY IN A RECENTLY ESTABLISHED UROLOGY UNIT.
N D Premachandra, S Sivakaran, S Kirupakaran, S Mahadeva,
Teaching Hospital Batticaloa, Sri Lanka

Introduction
Trans-rectal Ultrasound Guided Biopsy of Prostate (TRUS-P) is the gold standard to obtain biopsy of prostate for histopathological confirmation. Though this is the gold standard in rest of the world currently this is performed in a very few Urology Departments in Sri Lanka. We are reporting our initial experience after introducing TRUS-P at the Urology Department at the Teaching Hospital Batticaloa.

Material and Methods
We gathered data of all the TRUS-P done and analysed the first 25 procedures including the outcome.

Results
Average age of the group was 68y(range:53-81y). Lower urinary tract symptoms(LUTS) were positive in 92%. Thirty two percent presented with acute retention of urine (ARU). Only 8% denied LUTS. The PSA value was 10.0-29.9 in 72% (range:7.8-79.0). Only 4% had a PSA of less than 10.0. All the procedures were done under local anaesthesia and all of them had the routine recommended prophylaxis antibiotics. The average number of biopsy cores were 8 (range:6-16). Four patients had complications including uncomplicated urinary tract infection((3), ARU(2) and uro-sepsis(1). We had no Clavien-Dindo III to IV complications or mortality due to the procedure. We had to repeat the Prostate biopsy in 4 due to inadequate sampling. Histopathology showed adenocarcinoma of prostate in 28%, prostatitis in 36% with benign prostatic hyperplasia in 66%.

PP 36
PROSTATE CANCER IN THE EASTERN PROVINCE: DO WE DETECT THEM AT THE RIGHT TIME
ND Premachandra, S Mahadeva, S Sivakaran, S Kirupakaran,
Teaching Hospital Batticaloa, Sri Lanka

Introduction
Prostate cancer(P-CA) can be treated and controlled well if detected at early stages of the disease and if less aggressive. The burden to the health sector in Sri Lanka by P-CA has not been addresses properly.

Objective
To find out whether prostate cancer patients present at the early stages.

Material and Methods
We collected data from all the prostate cancer patients referred and presented at the Genito-Urinary Surgery(GUS) Department, Teaching Hospital Batticaloa in the Eastern Province during year 2014 and analysed.

Results
A total of 22 patients. Average age of 66 years(range:53-80). Majority of them(91%) presented with lower urinary tract symptoms(LUTS). Over 95% of the patients were referred by other surgical and medical units. Forty five percent had acute retention of urine at presentation. Only one had haematuria. Only 9% denied LUTS at presentation. PSA value was over 20ng/ml in 72%. More than 1/3 had a PSA of less than 10.0. Only one had haematuria. Only 9% denied LUTS at presentation. PSA value was over 20ng/ml in 72%. More than 1/3 had a PSA over 60ng/ml. Gleason’s score was 8 or more in 40%. Metastatic disease was found in 36% with majority being bone metastasis. None of them were suitable for curative resection. Most common reason not to offer radical resection was metastatic disease. Other causes were high PSA(>100ng/ml) and Gleason’s score>8. Hormonal ablation was the commonest treatment offered.
Conclusions
Majority of the patients with P-CA presented to the GUS unit with advanced disease. At the moment we do not detect P-CA early enough to offer radical curative treatment.

PP 37
CHARACTERISTICS AND OUTCOME OF BLADDER CANCERS IN THE EASTERN PROVINCE
N D Premachandra, S Mahadeva, S Sivakaran, S Kirupakaran,
Teaching Hospital Batticaloa, Sri Lanka

Introduction
Bladder cancer has a very good prognosis if detected early and treated properly. Genito-Urinary Surgery (GUS) Department, Teaching Hospital Batticaloa is the ultimate referral centre for the Eastern province handling all the referrals related to bladder cancer in the province.

Objective
To find the characteristics and outcome of bladder cancers in the Eastern province

Material and Methods
A prospective study was carried out to gather and analyse all the bladder cancer patients treated during the year 2014

Results
A total of 26 patients; Male:female ratio was 11:1 and average age was 65 years (range: 35-96 years). All underwent transurethral resection of bladder tumour (TUR-BT) as the initial treatment. Immediate intra-vesical Mitomycin was given in 27% of them. Histology showed papillary urothelial carcinoma in 92%. The rest were squamous cell carcinoma. Out of urothelial carcinomas over ¾ were High grade tumours, 44% were pT1 and 33% were pT2. All the invasive urothelial carcinomas with pT1 had intra-vesical Mitomycin afterwards. On follow-up check cystoscopy in the pT1 group, there were 3 recurrences during the last 18 months. Radical Cystectomy was offered to 5 patients but performed only in 2. Mortality due to bladder cancer during the last 18 months is 7% and all had pT2 (muscle-invasive) tumours.

Conclusions
Most of the bladder tumours in the region are high grade, but early detection and ideal treatment has given a very good control to the superficial disease. But the control of muscle-invasive bladder cancers is not optimal.

PP 38
HOW EFFICIENT IS THE HEALTH SYSTEM IN EASTERN PROVINCE IN REFERRING PATIENTS WITH PAINLESS HAEMATURIA AND MANAGING BLADDER CANCER
N D Premachandra, S Mahadeva, S Kirupakaran, S Sivakaran,
Teaching Hospital Batticaloa, Sri Lanka

Introduction
Painless haematuria in a patient over 40 years is a very strong indication to refer to a Genito-Urinary Surgery (GUS) Department as soon as possible. Many health service protocols (European, British) recommend these patients to be investigated within a few weeks afterwards and the initial treatment to be commenced at least within 6 weeks from the initial consultation.

Objective
To find how quickly a Painless haematuria patient was referred to the GUS department and how soon the initial treatment was commenced.

Material and Methods
A prospective study was carried out for 12 months taking patient with painless haematuria with bladder cancer. The 1st day of presentation to health sector was documented. The date seen by the GUS department and the date of transurethral resection of bladder tumour (TUR-BT) was documented.

Results
We analysed 25 patients who were referred with painless haematuria and treated for bladder cancer during 2014. Majority (82%) were males and average age was 65 years (range 35-96). Only 16% of the patients were referred within a week to the GUS department. Over 35% reached the GUS after 6 weeks and almost 1/3 was referred to GUS after 4 months from the first contact. After seen by the GUS team 36% had TUR-BT within 1 week and 88% were operated within 6 weeks. Only 1 patient had been treated after 4 months.

Conclusion
The delay from the initial health care contact to the GUS consultation is too long. After seen by the GUS team initial treatment commenced within an acceptable duration.

PP 39
A CASE-CONTROL STUDY TO IDENTIFY ASSOCIATED RISK FACTORS OF RENAL CELL CARCINOMA IN A COHORT OF SRI LANKAN PATIENTS
Suranga Nuwan Wijayarathna, Kalhar Indika, Mudith Samaraweera, Kasun Attanayake, Swarna Suvendiran, Anuruddha M Abeygunasekera
1 Departments of Urology and Radiology, Colombo South Teaching Hospital, Kalubowila, Sri Lanka.

Introduction
Associated risk factors for renal cell carcinoma (RCC) includes smoking, obesity, hypertension and diabetes mellitus. Studies on their role in Sri Lankan patients are sparse.

Objectives
To determine whether obesity, diabetes mellitus, hypertension and smoking are risk factors for RCC in a cohort of Sri Lankan patients.

Material and Methods
A hospital based case control study was done in a Teaching Hospital from January 2009 to April 2015. The prospectively collected data included history of smoking, hypertension, diabetes mellitus and BMI. The controls were patients who were admitted after trauma and who required abdominal ultrasonography as part of routine assessment. The controls were accrued at a ratio of 1:2 and were age and sex matched. Chi-squared test was used and p<0.05 was considered significant.

Results – There were 154 patients with renal cell carcinoma. Mean age of patients with renal cell carcinoma was 57 years. Twenty eight (18%) patients were less than 45 years old. Obesity (BMI>30) (p< 0.01), diabetes mellitus (p< 0.05) and hypertension (p< 0.01) were commonly seen among the cases than in controls. There was no difference of smoking between the two groups.

Conclusions
Obesity, hypertension, and diabetes mellitus can be considered as associated risk factors while smoking is not. The significant proportion of younger patients with RCC in the cohort could be a reason for the effect of smoking not to be evident.

PP 40
PERCUTANEOUS NEPHROLITHOTOMY (PCNL) UNDER REGIONAL ANAESTHESIA; FIRST CASE IN SRI LANKA
ND Premachandra, D Chandrasiri, S Sivakaran, S Kirupakaran, S Mahadeva,
Teaching Hospital Batticaloa, Sri Lanka.

Introduction
Percutaneous Nephrolithotomy (PCNL) is the treatment of choice for large renal calculi. In most of the centres in the world including Sri Lanka, PCNL is performed under general anaesthesia. We are reporting the first successfully performed PCNL under regional anaesthesia in Sri Lanka.

Material and Methods
We are reporting the per-operative and post-operative outcome of the procedure.

Results
A 64 year patient with a symptomatic 2.1m calculus in the lower calyx of left kidney with focal calycosis was offered with the procedure.
Combined Spinal-Epidural anaesthesia was given. Ureteric catheter(5Fr.) was inserted and turned to the prone position. After the puncture, guide wire, dilatation, 30Fr. Amplatz stone was fragmented and extracted. A Double"j" stent and a 22 Fr. nephrostomy tube were placed. Total operating time was 90min with 50 min for the surgical procedure. Further epidural local anaesthesia was not required. All the vital parameters were stable during the procedure. The measured blood lose was less than 100 ml. There were no intra-operative difficulties or complications. After 6 hours he felt mild pain(fig:01) which responded to oral Paracetamol 1g and O.Tramadol 50mg. In the post-operative day 1 he was given only O. Paracetamol 1g 6 hourly.

Nephrostomy tube and catheter was removed on post-operative day1. He had no immediate complications and was discharged day 2. Ureteric stent was removed at 3 weeks and had no late complications and was pain free.

Conclusions
Regional Anaesthesia was safe and very effective for PCNL with advantages such as early mobilization and discharge.

PP 41
LAPAROSCOPIC PYELOPLASTY; INITIAL EXPERIENCE AND OUTCOME AT A RECENTLY ESTABLISHED UROLOGY CENTRE.
N D Premachandra, S Mahadeva, S Kirupakaran, S Sivakaran,
Teaching Hospital Batticaloa, Sri Lanka

Introduction
Pelvi-ureteric junction obstruction(PUJO) is a condition which can lead to renal impairment unless detected early and treated properly. Currently the gold standard of treatment is Laparoscopic Pyeloplasty which has very good outcome, early recovery and a short hospital stay. We report our initial experience at the Urology Department, the Teaching Hospital Batticaloa.

Material and Methods
We collected and analysed all the patients who had laparoscopic pyeloplasty during the first 12 months, prospectively.

Results
Eight procedures with a 3:1 male:female ratio and an average age of 25years(range:10-62) were performed. Commonest presenting symptom was loin pain ranging from 5-8/10. Three(38%) had previous intra-abdominal surgery but only 2(25%) had previous renal surgery. Two(25%) had previous urosepsis but only one had been stented(ureter) before. All the patients had CT or IVU and a ^TPA scan which confirmed the diagnosis. All the procedures were done with trans-peritoneal approach using 3 ports in 85% of cases. 2 were converted to open due to difficulty in dissection due to adhesions. Majority(75%) were “Fengerplasty” and all had a ureteric stent and a drain. Average surgical time was 122(range:50-150)min. We had no per-operative complications and none were transfused. All the drains showed an output less than 10ml and all required only O.Paracetamol for post-operative pain. Ureteric stent was removed at 5-12weeks. Pain score at 3 months ranged from 0-4/10.

Conclusions
Laparoscopic pyeloplasty is a very safe and effective procedure to treat PUJO.

PP 42
OPEN PROSTATECTOMY FOR CLINICALLY BENIGN PROSTATIC HYPERPLASIA (BPH) - EXPERIENCE OF A PERIPHERAL UNIT
Conclusion
Open prostatectomy is a safe option in experienced hands. Further research is needed to verify statistical significance in order to derive conclusions.

PP 43
IS MINIMALLY INVASIVE SURGERY SAFE TO TREAT SIGNIFICANT UPPER URINARY TRACT OBSTRUCTIVE UROPATHY DUE TO UROLITHIASIS – SINGLE CENTRE EXPERIENCE
WDMG Amarasinghe, WKBMS Fernando, C Hingalagoda, A Ranasinghe, DL Piyarisi, LN Senevirathne
Sri Jayawardanapura General Hospital, Sri Lanka

Introduction
Upper urinary tract obstruction (UTO) is a urological emergency. Failure in timely intervention results in nephron loss, urosepsis and death. Timing and approach of the intervention depends on patient’s presentation and availability of resources.

Material and Methods
Prospective Descriptive Study was carried out at professorial surgical unit of Sri Jayawardanapura Hospital. All patients presenting with upper tract urolithiasis from January 2014 to October 2014(10 months), with significant UTO (moderate to severe hydronephrosis) were included. CT KUB±Urogram confirmed the obstructing stone and the degree of hydronephrosis. Patients with significant UTO were analyzed by presentation, interventions, complications and outcome.

Results
Out of 224 patients with UTO, 25% (n=57) had significant UTO. Of them 41%, and 14% had Diabetes mellitus and chronic kidney disease respectively. Eighteen patients (32%) had complicated UTO with urosepsis and/or acute kidney injury. Of them n=7 each underwent PCN insertion and retrograde stenting followed by secondary ureteroscopic lasertripsy (URSL) while n=4 patients underwent Primary URSL in 4±2 days. Uncomplicated UTO patients (n=39) underwent Percutaneous
Standard laparoscopic mobilization of the rectum was carried out up to the level of the pelvic floor. The intraanal dissection was then carried out between the external and internal sphincters till the internal plane was met. Rectum was exteriorized and coloanal anastomosis was constructed with a protective ileostomy.

Results

Resection margins in all specimens was negative. 17 patients underwent ileostomy reversal and 15 of them are continent. 2 patients failed to retain continence but show signs of improvement. One patient developed an anastomotic stenosis which responded to gentle dilatation.

Conclusions

Intersphincteric resection is an oncologically acceptable procedure for very low rectal tumors provided the external sphincters are intact. As it does not demand any sophisticated equipment it should replace abdominoperineal resections in most instances. Laparoscopy provides better visualization and access during the procedure.

PP 45

LAPAROSCOPIC INTERSPHINCTERIC PROCTECTOMY FOR VERY LOW RECTAL CANCERS – AN ONGOING STUDY

D.C.A. Thewarapperuma
General Hospital Rathnapura

Introduction

Abdominoperineal excision is commonly performed in Sri Lanka for very low rectal tumors due to the unavailability of laparoscopic stapling devices which can reach the lowermost rectum. However intersphincteric resection introduced in 2005 is the operation of choice for such lesions. This is an ongoing study in a peripheral unit on this procedure.

Materials and Methods

23 Patients underwent intersphincteric resection from November 2014 to May 2015.

Selection criteria were,
1-Tumor edge less than 5cm to the dentate line.
2-No radiological (CT scan) evidence of external sphincter involvement.

Faecal incontinence is a complication following surgical treatment for fistula-in-ano. The objective of this study was to find whether there is significant deterioration/change in faecal incontinence related quality of life due to surgery.

Materials and Methods

A prospective analysis was carried out in 35 patients who underwent surgery for fistula in ano over a period
of 24 months. Data was collected by an interviewer administered questionnaire. Faecal incontinence quality of life (FIQOL) was assessed before surgery and after a minimum of 12 months follow up (mean-27 months, range16-39). The difference in FIQOL was analyzed using Student's t-test (paired).

Results
Mean age of the participants was 43.8 years (range 22-69, males=31). The overall quality of life improved in 54.3%, reduced in 25.7% and no change was observed in 20%. But only 2.8% had reduction of quality of life when parameters of incontinence alone was considered excluding the scores which measured general well-being. The overall FIQOL score of the participants was higher after follow-up, however the difference was not statistically significant. Of the areas assessed by FIQOL the mean score on depression/self-perception had a statistically significant improvement. Other areas such as lifestyle, coping and embarrassment had only minimal difference.

Conclusions
There was overall improvement of incontinence related quality of life following surgery in our cohort of patients. Even though 25.7% had reduction in the quality of life it was mainly due to reduction in scores measuring general wellbeing and not due to faecal incontinence.

PP 47
SINGLE UNIT EXPERIENCE OF PERIANAL FISTULA MANAGEMENT
Kapila samarasekara, V.G.K.Chaturanga1,Rasika kota kadeniya 1, Srinat Illeperuma
Department of surgery, university of Peradeniya

Introduction
Perianal fistula is a common surgical condition. It is a great morbidity to the patient and real challenge to the surgeon.

Materials and Methods
This study included 33 patients. All the patients were under went standard fistulectomy. The Age, sex, characteristics of fistula and outcome were analysed.

Results
Mean age of the cohort was 41 years. Males are affected more than females. (68.9% vs 30.1%). Initially pain, irritation and pus discharge were the common complications. Irritation persisted for about four weeks. So, most of the patients could not attend their duties for about one month. Even in second month majority of them were reluctant to attend their jobs. Three patients were readmitted 4 days after the surgery due to bleeding. Five patients underwent up to 50% division of internal sphincter. No one developed incontinence. In one patient had to divide 75% sphincter and immediate sphincter repair done. He hasn’t developed incontinence. One patient had multiple fistulae due to Nylon wire used for rectal prolapse. Other two patient with multiple fistulae were due to granulomatous inflammation and hidradenitis suppurativa. One patient needed defunctioning sigmoid colostomy due to extensive multiple fistula disease. Average wound healing time was 12 weeks. Cutting or draining seton used for eight patients. Average sessions for cutting seton was two.

Conclusions
Perianal fistula is a complex disease and need more and more experience to get successful outcome.
cholecystectomy may result in conversion to open surgery. We studied the effect of body mass index (BMI) of patients in relation to laparoscopic cholecystectomy (LC) including conversion to open cholecystectomy (OC).

Material and Methods
Descriptive cross sectional study was conducted in patients with symptomatic gallstones from a single surgical unit. Data was collected form bed head tickets. Data was analyzed using SPSS software package.

Results
Out of 291 patients majority were females (n=160, 55%) and between 41-50 years age group. higher proportion of patients (n=169, 58%) had BMI>25. Conversion of LC to OC performed in 51 (17.5%). There was a significantly higher rate of conversion of LC to OC in patients with BMI>25. Higher rate of adhesions and instrument failure was noted in obese patients but these findings were not statistically significant.

Conclusions
We have a significantly higher rate of conversion of LC to OC in overweight and obese patients. We suggest further studies to analyze the probable factors related to obesity that may result in high conversion of LC.

PP 50
ANALYSIS OF SEXUAL DYSFUNCTION FOLLOWING OSTOMY
U Jayarajah, DN Samarasekera
Department of Surgery, Faculty of Medicine, University of Colombo, Sri Lanka

Introduction
Ostomy creation leads to physiological and psychological changes which can cause sexual dysfunction which is rarely discussed in the local setting. This study was aimed to assess the prevalence of sexual dysfunction and the possible associated factors in a cohort of patients.

Material and methods
An analytical cross sectional study was carried out among 40 patients (males=27) after ostomy surgery at a tertiary care centre. Relevant data were collected by an interviewer administered questionnaire. International index of erectile function (IIEF) and Female sexual distress scale-revised (FSD-R) which are validated screening tools were used to assess their sexual function. Data were analysed using one way ANOVA, Chi square test and Spearman’s correlation.

Results
Of the participants 45% (N=18, males=10) who were sexually active previously, became sexually inactive following surgery. Mean IIEF score was 15.43±6.89. Of males who were previously not impotent (N=21), 33.3% (N=7) developed moderate to severe erectile dysfunction and 28.5% (N=6) developed mild or mild to moderate erectile dysfunction. Retrograde ejaculation was seen in 2 patients. Surgery involving colorectal excision had lower erectile function compared to defunctioning ostomy. All (N=4) females who were sexually active had significant sexually related distress. Majority (65%, N=26, males=15) were not satisfied with their sexual function. Counselling or treatment for sexual problems were not discussed with the majority (95%, N=38).

Conclusions
Sexual dysfunction after ostomy creation was common in our cohort which was inadequately discussed and untreated. Therefore, sexual dysfunction should be discussed before and after surgery, and efforts to prevent and treat sexual dysfunction should be enhanced.

PP 51
FACTORS AFFECTING PSYCHOLOGICAL WELL-BEING OF STOMA PATIENTS
U Jayarajah, DN Samarasekera
Department of Surgery, Faculty of Medicine, University of Colombo, Sri Lanka

Introduction
Psychological well-being is an important component in the quality of life of stoma patients, which is given little
Material and methods
An analytical cross sectional study was conducted among 40 patients followed up at a single unit. Mean follow-up was 43 months (range: 6-183). Relevant data were collected by an interviewer administered questionnaire. Patient health questionnaire (PHQ) and Generalized anxiety disorder questionnaire (GAD) which are validated screening tools for depression and anxiety were used to assess their psychological well-being. Data were analysed using one way ANOVA, Chi square test and Spearman’s correlation.

Results
Of the study participants 17.5% (N=7) had moderate to severe depressive symptoms while 27.5% (N=11) had mild depressive symptoms. Moderate to severe anxiety symptoms were seen in 15% (N=6) and mild anxiety symptoms were present in 15% (N=6). Prevalence of depression was higher in those aged more than 60 and in females, while the prevalence of anxiety was higher in those aged less than 60 and in males. Prevalence of depression was significantly low in those who had a “comfortable” income (p<0.01). There was no significant association with prevalence of depression and anxiety symptoms with type of ostomy, type of surgery, diagnosis, marital status and educational level.

Conclusions
Prevalence of depression and anxiety symptoms in ostomy patients is high. Routine follow up by enteric stoma therapist may help to identify and treat the necessary patients to improve their quality of life.

PP 53
MINIMAL SCAR NIPPLE SPARING MASTECTOMY A BETTER OPTION THAN BREAST CONSERVATION
D.C.A. Thewarapperuma
General Hospital Rathnapura

Introduction
Complete mastectomy with breast reconstruction has the advantage over breast conversation as it spares the need for mandatory radiation. Skin sparing mastectomy and Transverse abdominis flap reconstruction does not render a highly satisfactory cosmesis. Nipple sparing mastectomy via a periareolar scar seems to provide the best cosmetic and oncological option in selected patients.

Material and Methods
43 female breast cancer patients underwent the procedure.
The selection criteria were
1- Tumours at or more than 5cm away from the nipple edge.
2- Patients without locally advanced breast cancer
A periareolar incision extending 1cm laterally from the edge of areola is made and careful dissection is done using the scalpel and the bipolar diathermy.Nipple core sampling was performed in each procedure. Axillary dissection was done via the same incision under the guidance of a 5mm laparoscope.
The patient was turned laterally and a latissimus dorsi muscle flap was harvested to fill the defect of mastectomy.

Results
In all specimens the tumor margins was clear. No nipple core was positive for tumor. In all specimens more than twenty nodes was harvested. Cosmetically the results were very encouraging with almost normal breast being perceived at three months.

Conclusions
The nipple sparing mastectomy procedure gives excellent cosmetic result and is oncologically acceptable. Laparoscopic guidance gives better visibility and safety during the axillary dissection.
Breast conservation with oncoplastic techniques: are we still away?

Bad Rubakan, S Varunprasanth, GH Rathnasiri, JASB Jayasundara, A de Silva.
Department of General Surgery (Ward 6B/19), National Hospital of Sri Lanka, Colombo 10, Sri Lanka.

Introduction
Due to technical development of imaging modalities and improvement of public awareness, suspicious breast lesions are detected in early stage. They are categorized according to the American College of Radiology Breast Imaging Reporting And Data System (BIRADS) from grade 0-VI. Though studies correlating Radiological (USS/Mammogram) findings with histopathology are common, no local research were found on assessing positive predictivity for malignancy in BIRADS grading in non palpable breast lesions.

Material and Methods
Non-palpable suspicious breast lesions (n=114) of BIRADS III/IV, which underwent needle localization excision biopsies from January 2014 to March 2015 at National Cancer Institute, Maharagama were included in this study. Retrospective analysis with histopathology in assessing positive predictivity of the above imaging categories was performed.

Results
78(68.4%) of the selected group was BIRADS III and 36(31.6%) was BIRADS IV. The commonest histological finding was fibrocystic disease in both BIRADS III and IV respectively 54(69%) and 23(64%). Carcinoma (including Ductal carcinoma in situ) was present in 3(3.8%) and 6(16.7%) respectively in BIRADS III and IV.

Conclusions
In general BIRADS III has a malignancy risk of <2% and BIRADS IV a wider range of 2-95% (But ranges 20-30% in most studies). Therefore semiannual follow up is suggested for BIRADS III without histological evaluation. Predictivity of malignancy in our study group was 3.8% and 16.7% for BIRADS III and IV respectively, closely relates the world statistics. Therefore BIRADS holds a safe prediction of malignancy for non-palpable breast lesions in local setup.
improve rate of BCS in EBC and its oncological safety.

PP 56
PREOPERATIVE SONOGRAPHICAL AXILLARY STAGING IN BREAST CARCINOMA. COMPARISON WITH SENTINEL NODE SAMPLING.
BMVC Bandaranayake, NS Atulugama, GKS de Silva, KSK Ariyapala
National Cancer Institute, Maharagama.

Introduction
Axillary nodal status is the single most important factor in prognostication and adjuvant treatment deciding in breast cancer. Preoperative axillary nodal assessment includes physical examination and imaging. Final decision is based on histology from Sentinel Lymph Node Biopsy (SLNB), in a clinically negative axilla or axillary lymph node dissection.

Material and methods
253 cases of ultrasonically assessed, physical examination negative axilla that underwent SLNB with Isolated Methylene Blue technique at National Cancer Institute, Maharagama from January 2013 to May 2015 were prospectively analyzed. Sonographically presence of enlarged lymph nodes and fatty hilum status (preserved/not) is compared with SLN histology using Chi Squared Statistical Analysis (CSSA).

Results
75(29.6%) of axillary ultra sound scan (USS) noted enlarged lymph nodes (ELN), while 50 (66.7%) out of them the fatty hilum was preserved. It was absent with negative guided cytology in 25(33.3%). Rest 178(70.4%) ELN was not detected in USS. SLNB histology was positive in 11(44%) and 13(36%) respectively in fatty hilum absent and preserved groups. In ELN absent group 24(13.4%) was positive for SLNB. CSSA at (P<0.05) showed significant association of SLNB result with LN size, but not with fatty hilum status.

Conclusions
Thus USS is a useful tool in preoperative assessment of SLNB patients. Nodal size appeared as a predictor of nodal involvement in our study group. Evaluation of other Ultrasonic nodal features such as cortical thickness, echogenicity, vascularity, intranodal necrosis etc., would be helpful in preoperative axillary staging and warrants further analysis.

PP 57
DESCRIPTIVE STUDY OF BREAST CANCER PATIENTS PRESENTED TO A SINGLE UNIT IN NATIONAL CANCER INSTITUTE MAHARAGAMA (NCIM)
S Vinojan, M Udukala, R Ramprasad, B Saseekaran
National Cancer Institute Maharagama.

Introduction
Incidence of breast cancer in Sri Lanka has been increasing and it is the most common malignancy among females. NCIM is the major centre for treatment of breast cancer in Sri Lanka. Aim of the study is to describe the cases presented with breast cancer at NCIM.

Material and Methods
Descriptive study was conducted by collecting data from a single unit in NCIM from 1st of January to 30th of June in 2013.

Results
During this period 71 patients were treated for breast cancer and all of them were females. Age at diagnosis ranged between 27 and 81 years with the mean age of 53.5 years.

69(97.2%) patients presented with breast lump. Infiltrating ductal carcinoma was most prominent histological type and 65(91.5%) patients had it. Mucinous carcinoma was found in two patients and lobular, cribriform and tubular carcinomas were found in one patient each. Patients presented with stage I, II, III, IV were 22(31%), 39(54.9%), 8(11.3%) and 2(2.8%) respectively.

Surgery was performed in 68 patients and among them 50 patients (70.4%) had modified radical mastectomy with level II axillary clearance.

Conclusions
Breast lump was the commonest presentation of breast cancer. As reported in most previous studies infiltrating ductal carcinoma was the commonest histological type. There was no one diagnosed with insitu carcinoma stage. This may be due to multifactorial mainly ineffective screening program, unawareness of breast cancer in our country and management of in situ carcinomas by surgeons in peripheral hospitals.

**Discussion**
This study showed that rotational antiseptic dressing were more efficient than traditional Povidone Iodine dressings in wound management and it reduced the requirement for surgical debridement.

**Conclusion**
Rotational antiseptics promote chronic wound healing process and it is an economical, efficient and simple, chemical wound debridement method to treat chronic wounds.

PP 59
**INJURIES DUE TO POWER GRINDER MACHINES: IS IT PREVENTABLE?**
S Sasikumar, M de Almeida.
Orthopaedic unit, Colombo South Teaching Hospital

**Introduction**
Power grinder machines are used to cut metal, tiles, wood and stones. Improper handling of power grinder machines by untrained operator without proper safety measures leads to various injuries. The aim of the study was to identify the pattern of injury and the factors related to the injury in the patients admitted to accident service.

**Material and Methods**
Prospectively collected data of all patients admitted to accident service with power grinder machine injury during a period of three months (September - October 2014) were analyzed with regard to age, gender, injuries and lack of safety measures.

**Results**
All 28 patients were male with the mean age of 37 years (range 15-67). Most of the injuries occur to machinist (89%) and others were the persons close by. Regarding the mechanism of injury, 79% of the victims hit by the machine dislodged from their hands and remaining were from broken blades. Limb injuries were (96%) common and most of them (54%) were below knee
Different types of RTA are shown in the table 1 below.

### Table 1 – Incidence of different fractures in different RTAs.

<table>
<thead>
<tr>
<th>Fracture Type</th>
<th>MC</th>
<th>TW</th>
<th>PC</th>
<th>LV</th>
<th>HV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoulder girdle</td>
<td>7.1%</td>
<td>3.9%</td>
<td>11%</td>
<td>18.2%</td>
<td></td>
</tr>
<tr>
<td>Humerus</td>
<td>4.1%</td>
<td>8.1%</td>
<td>12%</td>
<td>0%</td>
<td>27.3%</td>
</tr>
<tr>
<td>Radius/Ulnar</td>
<td>26.6%</td>
<td>32.4%</td>
<td>60%</td>
<td>33.3%</td>
<td>0%</td>
</tr>
<tr>
<td>Hand</td>
<td>8.8%</td>
<td>5.4%</td>
<td>8%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Femur</td>
<td>4.1%</td>
<td>8.1%</td>
<td>0%</td>
<td>22.1%</td>
<td>9.1%</td>
</tr>
<tr>
<td>Tibia/Fibula</td>
<td>16.6%</td>
<td>10.8%</td>
<td>4%</td>
<td>5.5%</td>
<td>9.1%</td>
</tr>
<tr>
<td>Ankle and foot</td>
<td>18.9%</td>
<td>10.8%</td>
<td>8%</td>
<td>5.5%</td>
<td>36.3%</td>
</tr>
<tr>
<td>Open Fractures</td>
<td>18.8%</td>
<td>12.5%</td>
<td>5%</td>
<td>6%</td>
<td>16%</td>
</tr>
<tr>
<td>Operative fixation needed</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
<td>11%</td>
<td>33%</td>
</tr>
</tbody>
</table>

### Discussion

MC leads RTAs in number and incidence of open fractures while TW accidents are the 2nd most common. Victims of both MC and TW have sustained mainly forearm, leg and foot fractures while femur fractures are commoner in LV accidents. This knowledge is useful in detection, treatment and prevention of such injuries.

### PP 61

**FREE FUNCTIONAL GRACILIS MUSCLE TRANSFER FOR ELBOW FLEXION**

Kavinda Rajapakse, Thushan Beneragama, Dulip Perera

**Introduction**

Functional losses in the upper limb that cannot be restored by nerve or tendon transfer present a treatment dilemma to the reconstructive surgeon. Transferring of a muscle from another limb, anastomosing its blood vessels and neurotizing its motor nerve is the only option in these patients. Common indications for functional free muscle transfer include late reconstruction of brachial plexus injuries, traumatic muscle loss, Volkmann ischemic contracture, loss resulting from oncologic resection, and congenital absence of motor function as seen in arthrogryposis.
Material & Methods
This article reviews the authors’ experience in upper extremity reconstruction using functional free muscle transfer. The indications and technique for functional free muscle transfer in the upper extremity are reviewed. Surgical details for sites of reconstruction and the nuances of harvesting the main donor muscles are presented.

Results
Three cases of free gracilis muscle transfer for elbow flexion in late brachial plexus injury patients (C567) with a review of their outcome are presented.

Conclusions
Functional free muscle transfer is the best and final option for restoring function in an otherwise non-reconstructable limb.

PP 62
EXTRADURAL HAEMATOMA: A SINGLE CENTRE EXPERIENCE
JGPJ Wijerathna, D Attanayake, N Gunasekara
Teaching Hospital, Karapitiya

Introduction
Extradural haematoma, is a common complication of head injury, often fatal if not treated in time. We analyzed 35 cases with EDH who consecutively underwent surgery, over 5 month period.

Material and Methods
This study includes 35 consecutive patients operated for EDH in teaching hospital Karapitiya from 01/01/2015 to 31/05/2015. Each patient was evaluated in terms of age, sex, mode of injury, Symptoms and signs, associated skull fractures, location of haematoma, GCS on surgery and interval between trauma and surgery. Data sources included patient’s hospital records, personal phone calls to the patient/family.

Results
Male : Female ratio 31:04. Co-existing other brain injuries were present in 7 patients (20%). Median age assessed through an interviewer based questionnaire.

Conclusions
Majority of spinal cord injuries were improperly managed in the prehospital period. Knowledge among public regarding spinal cord injury is inadequate to prevent secondary spinal cord damage. Public education and awareness programs are necessary and are suggested to improve spinal injury outcome.
Results
Among the 21 patients with pancreatic injury presented 76% (16) were male and the mean age of presentation was 10.3 years. Majority were Caucasians (52%). The handle bar was the commonest culprit for the isolated pancreatic injuries. Liver, spleen and duodenal injuries were frequently accompanied with road traffic accidents. Immediate CT and/or MRI scan enabled early decision making for surgery (38%). Thirteen patients had grade 1 and 8 had grade 3 pancreatic injury. All grade 3 injuries were managed surgically. Parenteral nutrition and naso jejunal feeds were given as adjunctive treatment (56%). The length of hospital stay ranged from 3 to 36 days and longer stay was associated with multiple internal injuries.

Conclusions
Good outcome was observed in children with isolated pancreatic injury and was facilitated with early imaging and adjunctive treatment.

PP 65
NONTUBERCULOUS MYCOBACTERIAL (NTM) LYMPHADENITIS IN CHILDREN- A LITTLE KNOWN DISEASE IN THE ENDEMIC AREAS FOR TUBERCULOSIS (TB)
Shani Fernando, Sandra Campbell, Udayangani Samarakkody, Noel Karalus
Department of Paediatric Surgery and Department of Respiratory Medicine
Waikato Hospital, Hamilton, New Zealand

Objective
To determine the pattern of disease in a non-endemic community with no compulsory BCG vaccination

Material and Methods
All laboratory isolates of NTM from 1995 to 2015 related to children under 15 years with lymphadenitis were included. A retrospective chart review of the demographics, presentation, vaccination history, surgical details and long term outcome of treatment were analysed.

was 42 years. Mechanisms of injury included falls (32%), motor cycle accidents (28%), assaults(14%), car accidents (11%), bicycle accidents (8%), and pedestrians (5%). 7 patients (20%) alcohol intoxication was documented. 5 patients (14%) had a lucid interval, bradycardia and arterial hypertension in 6 patients (17%), pupillary abnormalities in 16 (46%). 11 patients (31%) GCS scores were less than 8 on surgery. Skull fractures detected in 9 patients (26%). Temporoparietal region was the most frequent site of EDHs (45%) followed by parietal and frontal regions. Overall mortality is 17% (6 patients). Among 24 patients who underwent surgery within 6 hours after injury, mortality rate was 16.6% whereas surgery 6 hours after injury was 18%. Of the 6 deaths, only 1 (17%) had a GCS >8 on surgery, 83% had a GCS <8.

Conclusions
Predominantly road traffic accidents and falls contribute to EDH. Driving under the influence of alcohol is preventable. GCS on surgery is an important determinant of outcome following EDH.

PP 64
FACTORS DETERMINING THE BEST OUTCOME OF PAEDIATRIC PANCREATIC TRAUMA
AS Liyanage, NB Rodzi, U Samarakkody Department of Paediatric Surgery, Waikato Hospital, Hamilton, New Zealand

Introduction
Pancreatic trauma in children is uncommon. Therefore, literature on studies or guidelines of its’ management is sparse. The aim of the study was to evaluate variables that affect the management of pancreatic injury among the paediatric population.

Material and Methods
All paediatric patients presented to Waikato Hospital emergency department with pancreatic injury from 1999 to 2015 were evaluated. Their demographic data, cause, grade of injury, associated injuries and method of management were analyzed.
**Results**

Thirty eight isolates were included in the study. The age range was 14 to 87 months (1 to 7 years) with a median of 3 years. The children were predominantly caucasian and lived in rural areas. Indigenous maori were under represented. The presentation to surgical service was late with a range of 4 to 12 weeks. BCG vaccination was not given to any of the children and they were born in New Zealand which is a non endemic area for Mycobacterium Tuberculosis. The excision of the matted lymphnode complex was the standard of treatment with a few exceptions of curettage in pre auricular infections. Only two patients received chemotherapy as an adjunct to treatment.

**Conclusions**

NTM lymphadenitis should be suspected in toddlers with chronic lymphadenitis with minimal systemic symptoms. Surgical excision is the gold standard for treatment unlike in TB lymphadenitis and provides a successful long-term outcome. Lack of BCG may be responsible for high incidence.

**PP 66**

**Better outcome in primary gastro-intestinal lymphoma operated before chemo/radiotherapy: An observation in children**

Basant Kumar, Vijai D Upadhyaya, Sandeep Kumar
Department of Pediatric surgery,
Sanjay Gandhi Post Graduate Institute of Medical Sciences, Lucknow, UP, India

**Introduction**

Primary tumors of the gastrointestinal (GI) tract are rare in children and represent less than 5% of all pediatric neoplasms. Non-Hodgkin's lymphoma (NHL) remains the most common type of primary extra nodal lymphomas of the GI tract (5 to 10% of all NHL) while abdomen is the most frequent onset site of non-endemic Burkitt’s lymphoma. We present our experience with 7 cases of GI lymphoma needed emergency surgery for bowel obstruction / perforation during and before chemo-radiation.

**Material and Methods**

We retrospectively reviewed the record from Feb 2011 to March 2014 and all patients needed surgery for bowel obstruction / perforation was included in study. Patients were registered according to criteria developed by Dawson and colleagues. Surgical outcome and quality of life was compared among the patients operated; before and during chemo-radiation. Duration of follow-up was 3 month post surgery.

**Results**

Four out 7 patients were operated during chemo-radiation in which 2 patients were died in postoperative period because of tumor load, immunosupression, malnutrition and sepsis. Rest 2 patients continued chemo-radiation but quality of life was not appropriate because of malnutrition and recurrent neutropenia and one patient was lost in follow-up.

Three out of 7 patients were operated before initiation of chemo-radiation. All patients tolerated chemo-radiation better than previous group and their quality of life was better.

**Conclusions**

Quality of life of the patients of GI lymphoma is better in those patients who had resection of the mass prior to chemo-radiotherapy rather than those who are subjected to surgery during chemo-radiotherapy regimen. Probably it occurs because of better oral intake though a detailed study is needed to reach a definitive result.

**PP 67**

**INTUSSUSCEPTION-A SINGLE UNIT EXPERIENCE**

S.Vidanapathirana, ND Weeratunga Arachchige, JMSN Jayasundara, BSR Mendis, AK Lamahewage

**Introduction**

Intussusception is a common entity in paediatric surgical practice. We retrospectively analyzed the pattern of presentation and management of Intussusception in our unit at Lady Ridgeway Hospital for Children (LRH), Sri Lanka.
Material and methods
Data of all ultrasonically confirmed Intussusception patients who had been admitted during 2014 April to 2015 May were analyzed. First line treatment was saline reduction. Those who failed repeated saline reductions or had peritonism were directed for emergency laparotomy.

Results
Total study population was 103 with a mean age of 20.7 months. Eighty-five children were successfully treated with a single attempt of saline insufflation. Another eleven patients were managed solely with two or three attempts of saline reductions. All the patients who presented with red currant jelly stools were still successful with saline reduction. Out of 7 who needed a laparotomy, one had a bowel perforation.

Conclusions
Intussusception is common during 2 months to 2 years of age. Episodic crying, drawing up of legs & a sausage shape mass in RHC are classic symptoms. Red currant jelly stools is believed to be a late sign. Gold standard diagnostic tool is ultrasound scan, where sensitivity and specificity reaches 100%. Non operative treatment options (either saline or air reduction) will suffice in most cases but if it fails or develops features of peritonism, operative management will be necessary.

Our study population had classical patterns of presentation. Saline reduction seems to be effective and a safe method of managing Intussusception.

PP 68
POST-OPERATIVE VITAL PARAMETER MONITORING IN PAEDIATRIC SURGICAL WARD AND INTRODUCTION OF VALIDATED POST-OPERATIVE MONITORING PROTOCOL-A CLINICAL AUDIT
HKC Lakmal, M Ambegoda, A Abeydeera, M Samarasinghe, R Dias
University pediatric surgical unit, faculty of medicine, university of Colombo

Post-operative patients require continuous monitoring of vital parameters for detection of adverse effects and complications of surgery. There are international guidelines for post-operative monitoring in children but we are lacking a local standard post-operative monitoring protocol. Introduction of a validated postoperative monitoring protocol will potentially improve post-operative monitoring and facilitate early detection of complications. Furthermore this prospective chart can be used as a pediatric early warning system (PEWS).

Material and Methods
Level of monitoring of post-operative vital parameters for the first 8 hours post op in the surgical ward was audited through BHT records according to 2013 RCN guidelines. A basic post-operative monitoring chart and PEWS was developed and validated. Intern house officers and nursing staff were educated by formal ward educational meetings. The improvement of detection of post-operative parameters and complications were re-audited.

Results
BHT records of 61 patients were analyzed. There were 38 male children. Pre intervention monitoring percentages of the parameters were pulse (95%), temperature (90.2%), systolic blood pressure (32%), respiratory rate and effort (19.7%), urine output (13.1%), level of consciousness (3%) and pain (3%). Availability of parameter monitoring charts (except for temperature charts) was only in 37.7% of the population. Re-audit phase is currently in progress and all the parameter monitoring has improved.

Conclusions
Lack of standard monitoring protocols for children is a probable cause for under monitoring in post-operative care in children. Development of local protocols will improve the post-operative monitoring and the quality of care in pediatric surgical patients.

PP 69
PRESENTATION OF CHILDREN WITH PELVI-URETERIC
JUNCTION OBSTRUCTION TO A SINGLE PAEDIATRIC SURGICAL UNIT
NS Wijekoon, MR Wanniarachchi, M Samarasinghe, R Dias
University Paediatric Surgical Unit, The Lady Ridgeway Hospital for Children

Introduction
Pelvi-ureteric junction obstruction (PUJO) is a common paediatric surgical/ urological condition encountered by the paediatric surgeon. It has a wide array of presentations and some patients present with resultant long term complications.

Material and Methods
A retrospective analysis was performed of the records of patients who underwent surgical management of PUJO over a period of 18 months in a single surgical center at the Lady Ridgeway Hospital for children.

Results
A total number of 47 patients were diagnosed with PUJO during this period. The majority (81%) was males & the left side was most commonly affected (68.1%). Bilateral involvement was seen in only one patient. Mean age at presentation was 3 years 10 months. Urinary tract infection (UTI) was the commonest presentation (42.5%), while in 12 patients (25.5%) it was detected antenatally. Nine patients (19%) had experienced ipsilateral, recurrent abdominal pain over a period of time. Haematuria as a presentation was only seen in one patient. In 2 patients (4.2%) a ballotable mass was detected during physical examination.

Conclusions
Recurrent UTI was the commonest presentation among our sample whereas haematuria was a rare manifestation. In a significant proportion of patients the diagnosis was suspected during the antenatal sonography.

EXPERIENCE OF A SINGLE SURGICAL UNIT
NS Wijekoon, MR Wanniarachchi, M Samarasinghe, R Dias
University Paediatric Surgical Unit, The Lady Ridgeway Hospital for Children

Introduction
Pyeloplasty is an operation with a high success rate for pelvi-ureteric obstruction (PUJO). The diagnosis of PUJO is done by a combination of various imaging modalities.

Material and Methods
A retrospective study was performed of all the patients who underwent pyeloplasty over the last 18 months at the professorial surgical unit, the Lady Ridgeway Hospital for children.

Results
A total number of 47 patients had open pyeloplasty for PUJO during this period. There was a male preponderance (81%). Physical examination revealed a ballotable kidney in 8 (17%) patients. Ultrasound scanning and DTPA was performed in all patients prior to surgery. Supra normal differential functions in DTPA was seen in 40% (n=15) patients. The mean age at surgery was 3 years 10 months. All patients underwent dismembered pyeloplasty. Intraoperative DJ stents were inserted in 30 patients (64%) while others had nephrostomy tube insertion. Early DJ stent removal due to bladder irritation was required in 2 patients.

Conclusions
The vast majority of patients were subjected to dismembered pyeloplasty with intraoperative DJ stent insertion. Although DTPA was helpful in confirming the diagnosis, a high percentage of supra normal differential functions has implications in future follow up of these patients.

PP 70
DIAGNOSIS AND SURGICAL MANAGEMENT OF PEVIURETERIC JUNCTION OBSTRUCTION IN CHILDREN:

PP 71
PRESENTATION AND SURGICAL MANAGEMENT OF CHILDREN WITH UNDESCENDED TESTIS
NS Wijekoon, MR Wanniarachchi, M Samarasinghe, R Dias
University Paediatric Surgical Unit, The Lady Ridgeway Hospital for Children

**Introduction**

Undescended testis (UDT) is present in about 3-4% of all term male newborns. The ideal age of orchidopexy is an area of constant debate. There are various methods for surgical management of these patients.

**Material and methods**

The records of all the patients who underwent surgery for UDT over the last 12 months at the University Paediatric Surgical unit were analysed.

**Results**

There were 35 boys who underwent surgery for UDT. Vast majority (74.3%) had unilateral pathology. In 48.6% patients, it was detected by the doctor during the newborn examination. In 15 boys the initial detection was by the parents. The mean age at first detection was 9 ½ months. The mean age at surgery was 3 years 3 months. Testis was clinically palpable in 28.6% of patients. Laparoscopic surgery was carried out in 54.3% of patients. Out of them, 47% had primary orchidopexy while others underwent staged orchidopexy. In 30.8% of patients who had unilateral undescended testis, the contralateral side was fixed.

**Conclusions**

In this study, a significant number of cases of UDT was not detected by the doctors during newborn examination. Delay in detection may have disastrous consequences to the affected child. Therefore, both the parents and medical professionals should be adequately educated about this condition and the need for early referral to a specialist center.

**PP 73**

**A SURVEY ON CURRENT SURGICAL PRACTICE FOR CRYPTORCHIDISM**

BSR Mendis, NDW Arachchige, RS Mahagedara, AK Lamahewage

**Introduction**

Both benign and malignant solid tumours are not uncommon encounters for a paediatric surgeon. Most of them give rise to symptoms that are vague and thus mimic other harmless pathologies.

**Material and Methods**

A retrospective study was carried at the university surgical unit, The Lady Ridgeway Hospital to analyse all the patients who presented with solid tumours over a period of 18 months.

**Results**

A total of 31 patients with solid tumours were treated in our unit. The majority (90%) had a malignant histological diagnosis. The commonest tumour was neuroblastoma (n=10) followed by nephroblastoma (n=6). In the study group 51.6% were males. The mean age at presentation was 2 years 11 months. Abdominal distension was the commonest presentation (33.3%) in all tumours and 22.2% presented with abdominal pain while 11% presented with an incidentally detected mass. Other presentations included pyrexia of unknown origin, acute urine retention, constipation, leg pain, ataxia, haematuria & generalized ill health.

**Conclusions**

According to this study, paediatric solid tumours have presented in a variety of ways. Since most of these tumours have a favourable overall outcome, early detection will have a positive impact on the outcome of these children.
recommended to be carried out between 6 months to 1 year of age. Our aim is to describe the existing surgical trend in Sri Lanka for orchidopexy in comparison to the guidelines.

**Materials and Methods**
This is a retrospective descriptive study carried out at a paediatric surgical unit. Data on 96 children undergoing surgery for UDT were gathered from April 2014 to April 2015.

**Results**
An initial diagnosis of UDT was made in 54% (n = 52) during neonatal period while 12% failed to be diagnosed before 2 years of age. A paediatric surgical unit referral was first made in 40% before 1 year of age. Surgery was performed in 68% before the age of 2 years following referral (mean age = 23.7 months). This is above the age recommended for surgery. Most underwent open orchidopexy (48%) and 52% had laparoscopic orchidopexy, where 3 were diagnosed with vanishing testis syndrome. Right sided UDT was encountered 50% while 14% (n=13) presented with bilateral UDT. Ultrasound imaging was available in 60%. Family history was present in 7%, while only 14% (n=13) were born premature.

**Conclusions**
Our study shows that the mean age of surgery is above the age recommended by guidelines. This needs further evaluation.

**PP 75**
**DETECTION OF INCIDENTAL THYROID CARCINOMA IS SIGNIFICANTLY HIGHER IN GOITERS WITH BACKGROUND THYROIDITIS**
IHDS Pradeep, PC Chandrasinghe, BDAN Wijewardana, DMCD Dissanayaka, FR Fernando, UA Buddika, KR Kannangara.
Professorial surgical unit, Colombo North Teaching Hospital, Ragama, Srilanka.

**Introduction**
Incidence of 'incidental thyroid carcinoma' (ITC) is reported to be 3% to 16% in operatively treated benign thyroid diseases. This study analyses the results of a single surgeon performing total thyroidectomy for benign diseases and is the continuation of the study preliminary published in 2009.

**Material and Methods**
All patients, who underwent total thyroidectomy for benign diseases at the unit from January 2003 to October 2014 were included. All patients had preoperative ultrasonography and fine needle aspiration cytology (FNAC). Diagnosis of ITC was based on post op histopathological reporting. Test of proportions with a P value of 0.05 was considered significant.

**Results**
Total thyroidectomy specimens of 449 (Median age- 37 years; range: 25 - 65 years, female – 74.07 %) patients were analyzed. ITC was detected in 6.01% (n=27) of patients. Papillary carcinoma was the commonest (62.96%) subtype. There were 8 (29.62%) follicular and 2 (7.4 %) medullary cancers. Males had a significantly higher proportion of ITC (Male: ITC/benign = 15% Vs Female: ITC/benign = 5%; P= 0.02). Specimens with ITC reported a significantly higher rate of background thyroiditis (ITC = 33% Vs benign = 15 %; P= 0.02). ITC was not significantly associated with a family history (P= 0.7887). Postoperative transient hoarseness was observed in 3.56% and hypocalcaemia in 10.69%.

**Conclusions**
A significant proportion of 'benign' goiters may harbor ITC, especially with background thyroiditis. With emerging evidence to support total thyroidectomy with low morbidity it may be prudent to offer total thyroidectomy for benign goiters with background thyroiditis.

**PP 76**
**OBSERVATIONAL STUDY THAT ANALYSES CORRELATION OF THYROID GLAND WEIGHT WITH INTRA-OPERATIVE PRIMARY BLEEDING IN TOTAL THYROIDECTOMY WITH NON TOXIC AND NON
MALIGNANT INDICATIONS
J Gunatheepan, ASK Banagala

Introduction
Thyrotoxicosis, malignancies and thyroiditis are well correlated with intra-operative bleeding complication in thyroid surgeries. This observational study analyses the correlation of thyroid gland weight with intra-operative bleeding in total thyroidectomy with non toxic and non malignant indications.

Material and Methods
All the total thyroidectomies of a single general surgical unit of a Tertiary Centre - National Hospital of Sri Lanka, taken into the study, with the exclusion of toxic and malignant indications, over a period of one year from 1st September 2012 to 31st August 2013. All the gland weight and intrao-perative bleeding measured.

Results
Total numbers of cases were 54 with female-50 (92.59%) and male- 4 (7.41%). Age range was 25-71 years and mean age was 46. The range of intra operative primary bleeding was 40-600ml (male; 100-600ml and female; 40 - 500) with the mean value of 174.9ml (male; 287.5ml and female; 165.9ml). Thyroid gland weight range was 10-240g (male; 20-240g and female 10-202g) with the mean weight of 61.7g (male; 140g and female; 55.4g). Bleeding per unit weight of gland was 2.83ml/g (male; 2.05ml/g and female; 2.99ml/g).

Conclusions
This study does not show any particular correlation between intra-operative bleeding and gland weight, but it shows that intra-operative primary bleeding is more in male in terms of range and mean but mean bleeding per unit weight of gland is much less in male compared to female. However need of multicentre and high volume studies to prove this observation.

THE EFFECT OF CHRONIC LYMPHOCYTIC THYROIDITIS ON PATIENTS WITH THYROID MALIGNANCY
NJ Nawarathna, NL Kariyawasam, P Rathnayake, JAMTN

Introduction
The purpose this study was to investigate the association between chronic lymphocytic thyroiditis (CLT) and thyroid malignancy.

Materials and Methods
A retrospective review of clinicopathological characteristics of patients who underwent thyroidectomy at teaching hospital Kandy since 2013 January to 2014 December were analyzed. thyroiditis were diagnosed histopathologically.

Results
Among 475 patients 142(30%) had thyroiditis. 115 were nonspecific lymphocytic thyroiditis and 27 were hashimoto thyroiditis. 66(14%) had malignancy and 409(86%) had benign pathology. Papillary-35(53%), Follicular-21(31%), Other-6(9%), lymphoma-4(6%). 40(61%) had lymphovascular invasion. 42(64%) had capsular invasion. 48(73%) were unifocal and 18(27%) were multifocal. There was no significant association of presence of thyroiditis and gender of the patient (P = 0.098). The percentage of thyroid malignancies was significantly higher among males compared to females (P = 0.002). Presence of thyroiditis and Presence of thyroid malignancy Cross tabulation revealed Pearson Chi-Square = 4.437, P = 0.035. There was no statistically significant difference in, multifocality (P = 0.138), Capsular invasion(p=0.256) and lymphovascular invasion(p=0.226) between the patients of thyroid malignancies with CLT and without CLT.

Conclusions
There is a significant association between the presence of thyroiditis and presence of thyroid malignancy, where those who have thyroiditis are more likely to have a malignancy than those who do not have thyroiditis. There is no significant association of presence of capsular invasion or lymphovascular invasion and presence of thyroiditis. There is no significant association of focality and presence of
thyroiditis. Nevertheless, the influences of CLT on the prognosis of the thyroid carcinoma still need to be investigated with a larger sample size.

PP 78
RELIABILITY OF FNAC IN DIAGNOSING THYROID MALIGNANCY
Teaching hospital karapitiya, Galle, Sri Lanka

Introduction
Thyroid diseases are common disorders with a great geographical variation all over the world. Underlying pathology of a thyroid swelling can be variable. Out of all most sinister is the thyroid cancer. Fine Needle Aspiration Cytology (FNAC) is a widely accepted, simple and minimally invasive investigation in the assessment of nodular thyroid disease.

Objective
This study was conducted to evaluate the reliability of FNAC in diagnosing malignant thyroid conditions.

Material and Methods
Retrospective analysis of patients, who underwent thyroidectomies in the teaching hospital karapitiya during the period of ten month from 01.01.2014 to 31.10.2014, was considered in the study. Their preoperative FNAC diagnosis compared with the post operative histopathological diagnosis.

Results
Data from 94 patients who underwent FNAC and subsequent histological examinations were collected. Eight patients were excluded due to inadequate information given for a conclusive diagnosis. Out of the remaining 86 patients 44 had colloid nodules 16 had thyroiditis 24 had papillary carcinomas and 2 had follicular neoplasms.

Conclusions
The FNAC reliability in diagnosing thyroid malignancy was concluded as Sensitivity 73%, Specificity 85%, Positive predictive value 67.8% and Negative predictive value 87.9%. This is consistent with the recent reports in the literature that suggest sensitivity, specificity, positive and negative predictive values of FNAC in detecting thyroid diseases ranges from 84-98%, 67-100%, 34-92%, and 65-94% respectively.

PP 79
FINE NEEDLE ASPIRATION CYTOLOGY OF THYROID LESIONS AND ITS CORRELATION WITH FINAL HISTOPATHOLOGY
Gunapala KNM, Gamage HGSS, Fernando J, Wickramarathne SJD, Ranasinghe LA
National hospital of Sri Lanka

Introduction
Current guidance recommends the use of fine needle aspiration cytology (FNAC) as an essential investigation in patients presenting with a thyroid lump. Current literature suggests that the sensitivity of FNAC in thyroid nodules ranges between 80-90%. The aim of the present study is to correlate the cytological findings with final histopathology.

Material and Methods
Records of 667 patients with thyroidectomy in year 2014 reviewed retrospectively. Patient’s age, macroscopy, FNAC and final histology analyzed. Patients who have not undergone FNAC and imaging assisted FNAC were excluded.

Results
The cytological diagnosis was made according to following categories: Benign lesions, follicular proliferation, and malignant lesions including suspicious malignancy. Among 528 “benign cases” 45 turned out to be malignant and rest was benign. Among 61 cases of follicular proliferation 13 were malignant. Out of 78 patients from “malignant group” 29 were benign and 49 were malignant. The overall results showed a sensitivity of 45.8%, specificity of 97.2%, positive predictive value 62.8%, negative predictive value of 90.1% and diagnostic accuracy of 85%.
Conclusions
Sensitivity of FNAC in this study is less comparable to published literature. It may be due to this has excluded imaging assisted cytology. Our findings suggest that clinicians must interpret the results of FNAC with caution and consider further investigations like USS guided cytology. Further studies should be conducted to assess the correlation of imaging assisted FNAC with its final histopathological diagnosis.

PP 81
PREVALENCE OF THYROIDITIS AMONG PATIENTS UNDERWENT THYROIDECTOMY
NJ Nawarathna, NL Kariyawasam, P Rathnayake, RJK Seneviratne
Teaching Hospital Kandy, Sri Lanka.

Introduction
The purpose of this study was to investigate the prevalence of thyroiditis among patients underwent thyroidectomy.

Material and Methods
A retrospective review of patients who underwent thyroid surgery at teaching hospital Kandy since 2013 January to 2014 December were included. The clinicopathological characteristics of Patients underwent thyroidectomy were analyzed. Thyroiditis was diagnosed histopathologically.

Results
Among 480 patients (49 male and 431 female), 148 (30.2%) had thyroiditis. 120 were nonspecific lymphocytic thyroiditis and 28 were hashimoto thyroiditis. 71(15%) had malignancy (Papillary-36(53%), were assessed. Patients with prior voice pathology and previous neck surgery were excluded. Preoperatively vocal cords were assessed by indirect laryngoscopy. A set protocol was devised and adhered to by the performing surgeon. Perceptual and observed voice was tested by a speech therapist before, 2 weeks and 3 months after thyroidectomy.

Perceptual scores had worsened in 30(20%) but 12(8%) had improved. All deteriorated voice scores were normalised at 3 months. With increasing weight of the gland there were more associated voice changes (linear relationship).

Conclusions
With preservation of nerves and minimising damage to strap muscles and other surrounding tissues, voice changes after uncomplicated thyroidectomy is transient. Voice change is commoner in patients with surgery in larger glands. This knowledge is important in preoperative counselling, for ethical and legal purposes.

PP 80
FUNCTIONAL VOICE ASSESSMENT IN PATIENTS UNDERGOING OPEN THYROID SURGERY
MIC Perera, N Gunapala, LA Ranasinghe, RP Dayasena, JSR Jayasinghe
National Hospital of Sri Lanka

Introduction
Change in voice is a complication of thyroid surgery that can reduce quality of life and has significant implications for professional voice users. Post-thyroidectomy voice disturbances of patients in our setup have not been systematically studied, yet it is important for voice rehabilitation.

Material and methods
During a prospective study, patients admitted to a single unit for total thyroidectomy for benign disease were assessed. Patients with prior voice pathology and previous neck surgery were excluded. Preoperatively vocal cords were assessed by indirect laryngoscopy. A set protocol was devised and adhered to by the performing surgeon. Perceptual and observed voice was tested by a speech therapist before, 2 weeks and 3 months after thyroidectomy.

Results
Eighteen males and 132 females were assessed. Mean weight of the glands was 104.7g. Hundred and six patients had normal perceptual and observed scores preoperatively; rest had voice changes. Out of all patients, after 2 weeks 34(22.7%) had deteriorated observed scores but 16(10.7%) had improved scores.
was tested by a speech therapist before, 2 weeks and 3 months after thyroidectomy. Follicular-24(31%), Other-6(9%), lymphoma-5(6%) and 409(85%) had benign pathology. There was no significant association of presence of thyroiditis and gender of the patient (P = 0.537). There was no significant association between type of thyroiditis and sex of the patient (P=0.423). There was no significant difference between the mean ages of those who had and had not thyroiditis (P=0.659) and the mean ages of those who had Hashimoto’s and non specific Lymphocytic thyroiditis in the sample(P=0.369).

Conclusions
Female predominance is observed in patients with thyroiditis. There is no significant association of type of thyroiditis and sex of the patient. No gender or age preference for the presence of thyroiditis in this sample. There is no significant difference between the mean ages of those who have Hashimoto’s and non specific Lymphocytic thyroiditis in the sample. Nevertheless, the behavior, prevalence and significance of presence of either form of thyroiditis among our population still need to be investigated with a larger sample size.

PP 82
THYROIDITIS: IS IT A RISK FOR THYROID CARCINOMA?
RMTM Gunawardena, SJD Wickramarathna, LA Ranasinghe
NHSL, Colombo

Introduction
Thyroiditis has been described as a risk factor for the development of papillary carcinoma of the thyroid gland. This study aims to determine the association between thyroiditis and differentiated thyroid cancer in surgically resected total thyroidectomy specimens.

Material and Methods
Histopathology reports of patients who underwent total thyroidectomy in our unit between the periods of July 2014 to May 2015 were retrospectively analyzed.

Results
Of 162 total thyroidectomy specimens 151(93.2%) were from female patients and 11(6.8%) from males. In 77(47.5%) specimens lymphocytic thyroiditis was histologically confirmed. Of them majority were colloid storing nodular goiters with a background of thyroiditis (45, 58.4%). In 7(9.1%) papillary microcarcinoma was demonstrated while 2(2.6%) specimens each had classical papillary carcinoma and follicular carcinoma. We were unable to find a statistically significant association between the presence of thyroiditis and above mentioned cancers. (p=.268,.191,.503 for microcarcinoma, papillary carcinoma and follicular carcinoma respectively.)

Conclusions
Thyroiditis was a common finding in thyroidectomies performed for numerous indications. However a strong association between thyroiditis and differentiated thyroid cancer could not be demonstrated in our surgical population. Further studies incorporating a larger sample size is warranted.

PP 83
LATERAL APPROACH TO THYROID (LATT)
DMCD Dissanayake, RF Fernando, PC Chandrasinghe, BDEN Wijewardana, IHDS Pradeep, HGTS Nagolla, DMTS Dassanayake, PSIJ Dissanayake. University Surgical Unit, North Colombo Teaching Hospital.

Introduction
Thyroidectomy is the commonest endocrine surgical procedure, undertaken throughout the world. Re-do thyroidectomies are challenging procedures with a higher morbidity rate. LATT is a good alternative to the standard midline exploration. The key to the technique is the development of the natural tissue plane between the strap muscle and the ipsilateral sternocleidomastoid muscle to explore the thyroid bed. A study was done to assess the efficacy, safety and complication of LATT.

Material and Methods
Data on patients undergoing LATT in professorial surgical unit, Ragama from 2008 to 2015 was collected prospectively and analyzed. All procedures were done
by a single surgeon.

Results
A total 36 LATTs were done. Data from 32 people was collected as 4 patient lost follow up, 29(90.6%) were female and 3(9.4%) were males. Age ranges between 28 and 61 (Median 43.37). Three(9.4%) LATTs for parathyroid explorations and out of it one (3.1%) for redo parathyroid explorations. Nine(28.1%) were redo thyroidectomies and 18(56.2%) done with mini incision with lateral approach. Hemi thyroidectomies performed for 28(87.5%). Bilateral explorations done for 3(9.4%) patients and 4(12.5%) lateral approaches done for completion thyroidectomies for follicular malignant lesions. Transient clinical hypocalcaemia was noticed in 4(12.5%) patients and 1(3.1%) developed hoarseness of voice which was temporary and none of them had complications like haematoma and post surgery stridor.

Conclusions
LATT is a safe alternative to the standard approach, for re-explorative thyroid surgery.

PP 84
FEMALE PREPONDERANCE OF CARCINOMA OF THE ESOPHAGUS AMONG TAMIL POPULATION IN BADULLA; AN UNKNOWN RISK FACTOR?
MRS Manatunga, SMK Athukorala, UGN Samanthi, BMVC Bandaranayake, SB Agampodi
1Provincial General Hospital, Badulla
2Teaching hospital, Kandy
3Faculty of Medicine and Allied Sciences, Rajarata university of Sri Lanka

Introduction
Carcinoma of the Esophagus (ECA) is the third commonest cancer among males and fourth commonest among females in Sri Lanka. Sex ratio is 1:1 in published data. Increasing number of patients with ECA were observed in Provincial General Hospital, Badulla(PGHB). This study was to describe the epidemiology of ECA in Badulla.

Material and Methods
Present study was an analysis of secondary data from all confirmed ECA cases from August 2012 to November 2014. Epidemiological data, histology and the level of the tumor were extracted from the clinic records and pathology reports.

Results
264 patients were included. Median age was 63 years (IQR 55-70). Histology revealed 209(91.7%) Squamous cell carcinoma and 19(8.3%) Adeno carcinoma. Study sample showed a female predominance with 96 (37.6%) males and 159 (62.4%) females. Ethnic composition was 159 Sinhalese (62.0%), 89 Tamils (34.9%) and 8(3.1%) Muslims. Cancer detection rate was significantly high for Tamils, compared to other ethnic groups. (Chi square for goodness of fit =26.118, p<.001). Sex distribution among Tamils showed that 69 (77.5%) females compared to 20 (22.5%) males (Chi square for goodness of fit =14.96, p=.001), whereas the sex ration was almost 1:1 among Sinhalese.

Conclusions
Sex distribution of ECA among Tamil population in Badulla shows highly significant female preponderance, which indicates the presence of unidentified behavioral/ environmental risk factor. Further research to identify the risk factors is highly recommended.

PP 85
EFFECT OF DIRECT DEFECT CLOSURE ON POSTOPERATIVE SEROMA DURING TEP INGUINAL HERNIA REPAIR
Manjula SMP, Sujith Wijerathne, Jaideepraj Rao
Department of General Surgery, Tan Tock Seng Hospital, Singapore

Introduction
Post-operative seroma after laparoscopic TEP repair of direct inguinal hernia is a well known surgical complication. Prevention of seroma still a challenge to the surgeons. We observed that suture closure of the direct defect helps prevent post-operative seroma in these patients.
Material and Methods
Prospective study in a single institution conducted from January to August 2014. The defect was closed using a non-absorbable suture before placement and fixation of the mesh. Intra-operative findings recorded according to EHS classification. Patients were followed up post-operatively and observed for pain, seroma and hematoma.

Results
Twenty direct defects repaired in 14 patients. Mean age 65 (±6.89) years. Mean BMI 22.97 (±2.82) kg/m2. Out of 14 patients 6 (42.86%) were unilateral and 8 (57.14%) bilateral hernia. Eleven indirect defects noted but no femoral defects. Mean direct defect size 1.8cm (±0.4). Mean operative time 82.5 (±17.7) minutes. Mean hospital stay 25.93 (±4.37) hours. Mean pain score at discharge 0.29 (±0.59). Two patients with unilateral hernia had seroma during discharge, which resolved at 3 months follow-up.

Conclusions
Suture closure of the direct defect during TEP inguinal hernia repair may help prevent post-operative seroma. More structured and randomized studies would be needed to assess the exact outcome of this technique.

PP 87
“SILS (SINGLE INCISON LAPAROSCOPIC SURGERY) IN COLORECTAL DISEASE” INITIAL EXPERIENCE OF A TERTIARY CENTER IN THE UK
Sanjeev Samaranayake, Cosimo Alex Leo, Jiong Wu, Matic Bunic, Taskin Kadri, Janindra Warusavitarne
St. Mark’s Hospital and Academic Institute, United Kingdom

Introduction
Single-incision laparoscopic surgery (SILS) for colorectal surgery has been growing since the first SILS colectomy in 2008. It has many benefits including lesser incisions...
and in patients who require more than one operation this technique has the perceived benefit of switching between laparoscopic and 'open' surgery without loss of advantage. This study assesses the feasibility and safety of SILS in colorectal IBD (Inflammatory Bowel Disease).

**Material and Methods**

Data were collected retrospectively from January 2013 to April 2015 from patient records for analysis. All ileocolic resections and restorative proctocolectomies for IBD were selected. Primary surgery was compared with redo surgery.

**Results**

Forty six patients were included 27 had ileocolic resections for Crohn's and 19 underwent restorative proctocolectomies for ulcerative colitis. 33 were primary and 13 were re-do operations. The median age was 39 (14-72), male:female ratio was 25:21. The median hospital stay was 6 (3-28) days which was similar in the primary and redo surgery groups. The overall conversion rate was 7% which did not differ between the primary and redo group. The 30 day surgical complication rate was 36% with majority being Clavien-Dindo grade I and II.

**Conclusions**

This preliminary study demonstrates the feasibility and safety of SILS for colorectal surgery in IBD. Further evaluation of this technique is required.

PP 88
**ENHANCE RECOVERY AFTER ELECTIVE COLORECTAL SURGERY - SIX YEAR SRI LANKAN EXPERIENCE**

BD Gamage1, RMASN Ranatunga2, N Harivallavan3

1Department of Surgery, Faculty of Medical Sciences, University of Sri Jayewardenepura
2University Surgical unit, Colombo South Teaching Hospital.

**Introduction**

The enhance recovery after elective colorectal surgery (ERAS) protocol is used to achieve fast return to normal physiological status. Adherent to this protocol is not common in Sri Lankan practice. We have continued modified ERAS which have shown safe in the initial experience. This study is to evaluate success in each component of ERAS protocol.

**Materials and Methods**

Retrospective study data was collected from 52 patients who had undergone elective colorectal resection in our unit during 2009-2015. Each component of ERAS protocol was analyzed using a structured proforma.

**Results**

There were 31 males and 21 females with mean age of 56.83 years. 14 patients underwent for neo-adjuvant radiotherapy. Twenty seven (51.9%) patients underwent laparoscopic (including one 3D) surgery. Commonest surgery was anterior resection (50%) while other include; 10 abdominal perineal resection, 13 colectomies and 3 Hartmann reversal. Mobilization within 3 days was achieved in 44 (84.6%) patients while 67.3% were started on oral feeding same day of the operation. Hospital less than 5 days was seen in 26 patients (laparoscopic surgery 16). The post-operative complications noted were; 2 chest infection, 7 surgical site infections (clavian dindo class 2). When compared with calculated (CR-POSSUM) average mortality of 6.26 (range 0.68 - 20.02) the 30 day mortality with ERAS protocol was Zero.

**Conclusions**

ERAS protocol in colorectal surgery is feasible and successful to our local settings.

PP 89
**EVALUATION OF DEMOGRAPHIC DATA OF PATIENTS WITH ESOPHAGEAL CARCINOMA PRESENTED TO A TERTIARY CARE UNIT**

BCARP Bulathsinghela1, TGAPriyantha1, MSBTillakaratne1, I Athukoralal2, 1Colombo South Teaching Hospital
2Teaching Hospital Kandy

**Introduction**
Esophageal cancer is the seventh leading cause of death worldwide and third leading cancer in Sri Lanka. Central province is reported to have highest esophageal cancer incidence in 2007 with a crude rate of 11.3 per 100,000 population, in Kandy.

Materials and Methods
Retrospective descriptive analysis using the data obtained from all the patients with carcinoma esophagus managed at gastro-intestinal surgical unit at Teaching Hospital Kandy from 2007 to 2011 (n=239). All the data were obtained from the local data base.

Results
Age range was from 35 to 90 years with the mean age 62 years; Out of study population 53.55% were females. Mean age in females was 62.8 years and in males was 61.1 years. Majority were from low socioeconomic background house (manual workers were 28%, estate workers 12.6%). Majority of patients were from Kandy (60.3%).

Conclusions
Average age at presentation was 62 years, while its 67 years in the world population. Esophageal carcinoma shows male predominance in world (female: male=1:3-8); while sex incidence was equal in Sri Lanka in 2007; and our data showed a females predominance (female: male=1.2:1). Low socio economic status is considered a risk factor for carcinoma oesophagus. In this study oesophageal cancer was common among low socio economic group in keeping with world trend.

Introduction
Enhanced recovery after surgery (ERAS) programme is implemented principally in the perioperative care of patients undergoing colorectal resections. It has shown that coupling laparoscopic techniques augments the benefits of ERAS. This study analyses an unselected cohort of patients undergoing elective laparoscopic colorectal resections within an established ERAS programme to determine the short-term outcomes.

Material and Methods
A prospectively maintained database of one thousand and one consecutive laparoscopic colorectal resections (LCR) from April 2005 to September 2011 was analysed. Patients who died before surgery and those with missing notes were excluded from the analysis. Data was extracted for demographic variables, length of stay (LOS), 30 day re-admission and 30 day mortality. Analyses were performed using the computer program “R”.

Results
A total of 868 (425 male) patients were included in the analysis. Mean age was 65.4 years. There were 602 (69.7%) cancer resections. Rectal resections were performed in 261 (30.1%) patients. Median LOS after surgery was 7. Thirty day mortality was 4.2%.

Conclusions
LCR managed within an ER protocol offers significant reduction in LOS and complications. The results of this study is comparable to the previous controlled studies published in the literature, means that this reflects the true effect of ER on day today practice.
Efficacy of Fine needle aspiration cytology (FNAC) and thyroid ultrasound in diagnosis of thyroid nodules have shown varying results in case series. Hence the cytohistological association and effectiveness of thyroid ultrasound (US) for diagnosing thyroid neoplasms at a tertiary hospital in Sri Lanka was analyzed.

Material and methods
104 Thyroidectomies performed from March 2014 to May 2015 were considered. Their preoperative FNAC (Thy diagnostic category 1-5), ultrasound details and histology records were analyzed. US features of solid and hypoechoic nodules, increased vascularity calcification and lymphnode status were considered as suspicious.

Results
30/70 patients with a Thy 3 FNAC (follicular proliferation) had malignancy of which 24 (80%) were papillary carcinomas and only 5 follicular carcinomas. Benign histology in 40/70 with thy 3 comprised 15 adeno-mas, 13 colloid nodules and 12 thyroiditis. Out of the 18 Thy-2 only one (5.6%) was malignant. Of the 13 with thy 4 and 5 malignancy was seen in 11 (84.6%). Only 18/46 (39.1%) with suspicious US had true malignancies. Binary logistic regression for prediction of malignancy was significant for FNAC (p<0.00) but US was not (p=0.772).

Conclusions
Only 7.1% Follicular carcinomas and 21.4% follicular adenomas were seen as Follicular proliferations (FNAC 3) whilst Papillary cancer (34.3%) was the main histology. Detection of thyroid malignancy amongst FNAC 1,2 and FNAC 4,5 groups showed significant associations. Thyroid US alone has a weak association for the prediction of malignancy in contrast to FNAC which is more predictive.
SJD Wickramarathna, KNM Gunapala, RMTM Gunawardena, LA Ranasingha

Introduction
Nearsutureless thyroidectomy done using electrocautery for dissection and control of all vessels encountered on thyroidectomy. This technique decreases the time for suturing and also cost effective. Deep cervical fascia and skin are only approximated with sutures.

Material and Methods
Data on patients undergoing near sutureless thyroidectomies in a surgical unit with especial interest in endocrine surgery at NHSL, from 2014 October to 2015 June was collected prospectively in this study. All procedures were done by a single trainee under supervision.

Results
All patients with nearsutureless thyroidectomies done by the trainee were reviewed. A total 82 nearsutureless thyroidectomies were done. Of them 75 (91.46%) were females and 7 (8.54%) were males. Their age ranges between 24 and 67. Two (2.4%) thyroidectomies were for malignancies where neck dissection was performed in 1 (1.22%) patient. Sixty three (76.83%) thyroidectomies were done for multinodular goitres. Transient clinical hypocalcaemia was noticed in 8 (9.75%) patients and 5 (6.1%) developed hoarseness of voice which was temporary. One (1.22%) developed post surgery haematoma which needed re-exploration. Seventy two (87.8%) patients were discharged on post operative day 1.

Conclusions
Nearsutureless thyroidectomy is an alternative to conventional thyroidectomy for both benign and malignant conditions. It is safe and cost effective. Another advantage is there would be hardly any learning curve. This is a feasible technique for both multinodular and solitary nodular goitres. However operator’s discretion plays important role in need for ligation.

G D K De Silva, K A P R Kumarasinghe, P Bandarage, S K Kollure

Introduction
Complete rectal prolapse has no accepted standard surgical treatment. Surgery can be assigned to abdominal or perineal. Abdominal procedures involve open/laparoscopic rectopexy using suture/mesh with or without resection of sigmoid colon. Study aimed to address surgical outcome comparing relative merits of open and laparoscopic procedures in local settings.

Material and Methods
A prospective study was done in a general surgical unit over 2 years. Patients who underwent abdominorectopexy were followed up to assess surgical outcome. The outcome measures were change in defaecatory performance (continence, evacuation-Kamm score), change in Quality of Life (EuroQoL EQ-5D), operative Morbidity and recurrence of prolapse. Standard questionnaire was administered for data collection.

Results
18 abdominal suture rectopexy (laparoscopic-8(44%), open-10(66%) were performed. Median age was 65. Median follow up was 9 months(6-12). Median hospital stay was 3 and 5 days for open and laparoscopy respectively. Constipation and incontinence were improved in 75% of patients in both groups. There was no recurrence during study period. Quality of life was improved in all patients irrespective of procedure. 2 patients(20%) in open group had post-operative morbidity whereas it was zero in laparoscopy group.

Conclusion
Both open and laparoscopic approach equally effective in improving patients’ symptoms and quality of life. But laparoscopic approach is better option considering shorter hospital stay and less post-operative morbidity. Even though these results are comparative to
western figures a trial with larger number of patients and longer follow up period is necessary for statistical comparison.

PP95
OBSERVATIONAL STUDY OF PATHOLOGICAL SPECTRUM OF DISCRETE BODY LUMPS IN CHILDREN REFERRED TO THE OUTPATIENT DEPARTMENT SURGICAL CLINIC
UARS Ranawaka, FH Azmy, NLDI. Nanayakkara, AMA Nasar

Introduction
Analysis of discrete body lumps in children referred to outpatient department surgical clinic at Lady Ridgeway Hospital for Children (LRH) was performed to study the spectrum of pathologies.

Material and methods
Retrospective study of discrete body lumps referred to outpatient department surgical clinic at LRH was performed by analysing clinical records and relevant investigations over one year period (2014/01/01-2014/12/31).
Vascular pathologies, abscesses/antibiomas, haematomas and herniae/hydrocoeles were excluded even when classified as “body lumps” by referring clinicians.

Results
Annual new clinic referrals: 4821
Number with lumps: 514

Aetiology of 126/155 lymph nodes was infective/inflammatory. Histology of 16 of these showed non-specific chronic inflammation while 3 had tuberculocesargulomatous pictures. Rest 29/155 nodes were non-significant.
The 63 dermoid cysts were positioned: 15 anterior neck, 21 external angular, 12 post auricular, 4 forehead, 7 midline vertex, 2 temporal, 1 sacral and 1 occipital.
The neoplastic lumps were: 1 pleomorphic adenoma of parotid, 1 abdominal wall secondary deposit from neuroblastoma, 1 nephroblastoma and 1 osteolytic lesion of humerus.

Conclusions
The pathological spectrum of body lumps ranged from non specific thickening of connective tissue to metastatic disease. Approaching each lump with an open mind and, use of adjunctive investigations with the slightest of doubt would help achieving the correct diagnosis.
IS THERE ANY ASSOCIATION BETWEEN COMMONLY USED LABORATORY TESTS AND SEVERITY OF DIABETIC FOOT WOUNDS?

ALAMC Ambegoda¹, JR Wijesekera¹, MDRM Piyasiri², KI Panditharthathne³, RT Gamage³, OMDCS Mudalige¹
1Colombo North Teaching Hospital, Ragama, Sri Lanka
2Base Hospital Dambadeniya, Sri Lanka

Introduction
Diabetes is a non-communicable disease with complications such as foot ulceration, leading to significant morbidity and mortality. Aim of this study was to assess the relationship between the severity of diabetic foot wounds and values of commonly used laboratory tests.

Material and methods
This descriptive study was conducted in a surgical casualty unit of a tertiary care hospital. Study population consisted of 91 diabetic patients, randomly selected from casualty admissions for a period of 4 months. Pretested interviewer administered questionnaire was used to extract data. Wounds were classified according to Wagner classification system. All blood tests were performed by standardized laboratory equipment. Statistical significance was calculated by Chi square test.

Results
Out of the 91 patients, 55 were males and 36 were females. Mean age was 60.12 ± 10.19 years and median diabetic duration was 10 years (IQR 4.25-16.75). Commonest foot lesion was Wagner type 2 (n=37, 40.65%). Wagner 1, 3, 4 and 5 were 16 (17.7%), 26 (28.8%), 12 (13.3%) and 0 respectively. Mean hemoglobin level was 10.16 ± 1.90mg/dL with Wagner grade 3 having the lowest (9.23mg/dL). Wagner 4 had the highest mean WBC count of 15.49 ± 5.16 ×10⁹/L with the population mean of 13.01×10⁹/L. Mean random blood sugar level was 201.57 ± 87.33mg/dL.

Conclusions
There is no statistical significance association between Wagner grading and hemoglobin level (p=0.81), WBC count (p=0.83) and FBS (p=0.88).

EPIDEMIOLOGY, INJURY PATTERN, SEVERITY OF INJURIES AND RISK FACTORS OF ROAD TRAFFIC ACCIDENT (RTA) CASES AT A GENERAL SURGICAL UNIT OF A TERTIARY CARE HOSPITAL IN SRI LANKA

WA K Bandara, T L Premathilake, W N T Wijesundara, W M C B Wikramasooriya, S M M Niyas
General Surgical Unit II, General Hospital (Teaching) Kandy, Sri Lanka.

Introduction
RTA has become an important cause of injuries and deaths in Sri Lanka. Rapidly developing roads, increasing number and types of vehicles, increasing road users, rise in alcohol and narcotic usage are some of the causes. It needs further studies of RTA victims at regional and institutional level to explain the recent surge of RTA incidence in Sri Lanka.

Material and Methods
This is a descriptive, prospective study of RTAs at General Surgical Unit II, General Hospital (Teaching) Kandy, Sri Lanka, from 01.12.2014 to31.05.2015. Study Instrument was an interviewer administered questionnaire. Severity of injuries was assessed using the Injury Severity Score (ISS).

Results
Out of 4727 of total admissions 6.40% were RTA. Males 79.92%. Highest affected age group is 21-40 years (48.6%). Most of accidents occurred during daytime (66.79%), 80.46% on carpet roads, 39.38% following motorbike accidents, and 38.22% three-wheelers. Drivers 50.19%, passengers 37.45% and pedestrians were 12.35%. Within first 15 minutes of driving 46.45% of drivers met with accidents. Of the RTA victims
37.59% were alcohol users, 99.61% had less severe injuries (ISS<15), 39.9% had abrasions, 33.01% had lacerations, 36.51% had lower limb injuries, 28.37% had head and neck injuries and 93.98% were due to primary impact.

**Conclusions**
Younger age groups and males were predominantly victimized by RTA. Most accidents occurred during the daytime. However injuries are less severe in this cohort. It needs further evaluation and urgent attention to prevent RTA by educating the affected groups. Teaching road safety in the school is recommended.

**EP 03**
**COST REDUCTION OF HEALTH SYSTEM FOLLOWING DEVELOPMENT OF A TELEMEDICINE REFERRAL SYSTEM AT A PERIPHERAL HOSPITAL**
WAMA Willaraarachchi, RPR Premadasa, J Jeyakumar, V Swarnakumar, N Nugaduwa

**Introduction**
Reducing or containing the cost of health system is one of the most important reasons for adopting telemedicine referral. Telemedicine referral system for orthopedic casualties, which we received at district base hospital Wathupitiwala (DBHW).

**Material and Methods**
A prospective study was done at DBHW during a six month period from 1st December 2014 to 31st May 2015. We have referred patients (following initial management) to the orthopedic unit at Colombo north teaching hospital (CNTH). Telemedicine referrals were done. Cost was analyzed for transport of the patient, stationaries used for and man power. Cost for drugs and hospital accommodation were not included as it is the same at either hospital.

**Results**
Hundred and thirty five patients (75.9%) of a total of 178 patients were managed at DBHW after getting opinion by consultant orthopedic surgeon via telemedicine referrals and discharged from hospital. Only 23 patients (12.9%) required referral to orthopedic clinic at CNTH before discharge and 20 (11.2%) transferred to CNTH immediately for further management. Overall, 135 (75.9%) patients were saved a four/six hour round trip. An estimated 94 – 98 ambulance journeys including 3 to 4 staff members per journey were saved. Ultimately LKR 35,000/= to LKR 40,000/= cost was saved for the health system in each month.

**Conclusions**
The development of a telemedicine referral system significantly reduced the cost of health system and this can be implemented for other fields as well.

**EP 04**
**ELDERLY PATIENTS WITH FEMUR NECK FRACTURE: INFLUENCE OF AGE AND COMORBIDITIES ON DURATION OF HOSPITAL STAY**
S Sasikumar, M de Almeida
Orthopaedic unit, Colombo South Teaching Hospital

**Introduction**
Osteoporotic neck of the femur (NOF) fractures are common admissions to orthopaedic unit and inpatient stay is prolonged due to number of reasons. The aim of the study was to compare inpatient hospital stay in relation to age and comorbidities.

**Material and Methods**
Prospectively collected data of all the elderly patients with NOF fracture due to low energy force, admitted to orthopaedic unit during three months period (August - October 2014) were analyzed with regards to length of hospital stay.

**Results**
Among 109 patients mean age was 78 years and male to female ratio was 1: 3.4. Mean hospital stay of the patients managed conservatively (24.8%) was 98.3 hours (range 19- 313). While the patient managed surgically, mean hospital stay was 233.7 hours. Patients with comorbidities have statistically significant increased mean pre op stay (P= 0.009) compare to
patients without comorbidities, but difference in post op stay was statistically not significant (P > 0.05) between the groups. Patients with age more than 70 years and less than 70 years didn’t have a statistically significant difference in pre op and post op hospital stay. During this three months period nearly ten hospital beds were occupied by NOF fracture patients every day.

Conclusions
Inpatient hospital stay of NOF fracture patients need to be reduced by addressing the factors related to that. Addressing the co morbidities early, may help to reduce the length of stay.

EP 05
FACTORS CAUSING DELAY IN PROSTHESIS FITTING AMONG TRANSTIBIAL AMPUTEE WITH PERIPHERAL VASCULAR DISEASE PATIENTS
VP Wijesundara, YP Lankeshwara, SAC Solangaarachchi, BDJ Chathurika, MRN Cassim.
University surgical unit, Faculty of Medicine, University of Colombo

Introduction
Transtibial amputation is common among patients with peripheral vascular disease. Delay in prosthetic limb usage following a major lower limb amputation causes prolongation of disability, development of unwanted complications of bed bound state and increased family burden.

Material and methods
This is a retrospective cross sectional descriptive study conducted at a tertiary care unit on consecutive patients undergoing transtibial amputations over 4 months. Sample includes patients, completed minimum 3months to maximum 6months of postoperative period.

Results
Out of 30 patients underwent amputation, 3(10%) died and 3(10%) engaged in prosthesis training at the time of data collection. The rest 24 (80%) were not able to initiate the prosthesis training process due to, wound healing delay in 17(57%), complications in the other lower limb 3(10%) and couldn’t afford in 4 (13%).

Conclusions
Initial rehabilitation started in all patients during early postoperative period but majority of the patients (57%) didn't engage in rehabilitation process due to delay in wound healing. Other co-morbidities, state of the other limb, general condition of the patient and unaffordability also contribute to the delay. To overcome these obstacles continuation of rehabilitation while managing wound is needed.

EP 06
CLINICAL AND MICROBIOLOGICAL RELATIONSHIP BETWEEN PERIANAL ABSCESS AND FISTULAE – SRI LANKAN EXPERIENCE
Rubecka S, Rathnasena BGN, Srinivathan S, Shangar M NHSL

Introduction
The study was aimed at assessing how common the intestinal florae in patients with perianal abscesses and their association with fistula formation.

Materials and Methods
Fourty five patients presenting with perianal abscesses to the wards 27/38 of NHSL within 8 months period, were included in the study. Details were obtained with an interviewer administered questionnaire. Pus cultures were taken at the time of surgery. Patients were followed up at 7, 14, 28 days or upto the point of complete healing of the abscess.

Results
Out of 45 patients 37(82.2%) were males while 8(17.8%) were females. Commonest age group was 31 - 50 years(49.8%,22). Twenty(44.1%) had past history of abscesses. Mean number of days at presentation was 6.28 days. Seventeen(37.8%) had diabetes mellitus and 23(51.1%) were alcohol consumers.

Most of the patients had normal bowel habits (36, 77.8%) and good perianal hygiene(32,71.11%). Nineteen(42.2%) had their abscess from 4-60 clock position and mean distance

78
from the anal verge was 2.6cm. Majority (35.6%, 16) were discharged on postoperative day 1 while mean was 3.4 days. Twenty two (44.4%) were healed by day 28. Four cases were redrained and 3 patients ended up with fistulae formation. Fourteen (31.1%) cultures were positive for coliforms, while majority were skin flora (26, 57.8%) and no pathogens isolated from 5 (11.1%).

Conclusions
Patients who had skin flora in perianal abscesses did not have fistula formation. In our study presence of intestinal flora was significantly associated with fistula formation. \(X^2=7.117, p<0.05\). Microbial patterns in cultures were not significantly associated with bowel habits, perianal hygiene and diabetes.

EP 07
POSITIVE PREDICTORS OF NON-SENTINEL LYMPH NODE INVOLVEMENT – PRELIMINARY DATA
NS Atulugama, BMVC Bandaranayake, GKS De Silva, KSK Ariyapala, EPDS Ediriweera

Introduction
Sentinel Lymph node Biopsy (SLNB) is an oncologically accepted technique for axillary staging in clinically negative axillae with less morbidity. It was routine to perform a complete axillary lymph node dissection (ALND) whenever histologically positive Sentinel Lymph node (SLN) was found. But, studies have revealed in majority of patients (60%) the only positive nodes were the SLNs and disputed a routine ALND.

Material and Methods
Prospective analysis was done from January 2013 in patients with early breast cancer and clinically negative axillae (single unit). They were offered mastectomy or breast conservation with SLNB. We used Isolated Methylene Blue technique for SLNB. If a histologically positive SLN was found completion of ALND was done. Pearson’s chisquare test and Fishers exact statistical tools were used to assess the predictors. \(P < 0.05\) was considered as significant.

Results
Total of 253 patients were included in the study and 48 (18.97%) had histologically positive SLN. Sixteen patients (33.33%) had positive Level 1 non-SLN involvement and 7 (14.58%) of them had Level II involvement. Positive Predictors of non-SLN involvement: on univariate analysis Pathological SLN size, Clinical T stage (T2 vs <T2), Histological grade of tumor, Vascular emboli and extranodal extension showed statistically significant correlation. But Tumor location (Subareolar and Upper Outer quadrant), receptor status and age were not significant factors.

Conclusions
Only 1/3 of patients had non-SLN involvement and the positive predictors are Pathological SLN size, Clinical T stage, Histological grade of tumor, Vascular emboli and extranodal extension in our study population.

EP 08
ANATOMICAL POSITION OF VERMIFORM APPENDIX OBSERVED IN LAPAROSCOPIC APPENDICECTOMY
JGPJ Wijerathna, SC Ranmuthuge, BGD Sandamali, N Wijesundera
Teaching hospital Karapitiya.

Introduction
The vermiform appendix is one of the most variable abdominal viscera in terms of position, extent, and organ relations. This variable anatomy may pose a challenge during both open or laparoscopic appendectomy. Ethnic and geographical variations have been reported, too. Although appendectomy still remains one of the most commonly performed surgical procedures in Sri lanka, there is still scarcity of data on variant anatomy of the vermiform appendix in Sri lanka. This study therefore aimed to investigate the frequency of various positions of appendix detected at laparoscopic appendicectomy.

Material and Methods
All completed laparoscopic appendicectomies at a single surgical unit in teaching hospital Karapitiya
between 01/10/2013 to 31/05/2015 were studied prospectively. Position of the appendix and caecum observed and documented just after the insertion of laparoscope before any surgical procedure is performed.

**Results**

There were 25 patients (16 males and 9 females) with a median age of 27 years (range 11-56 years). The caecum was at right iliac fossa in 24(96%) patients whereas high lying in 1(4%) patient. The appendix was retrocaecal in 11 patients (44%), pelvic in 5(25%), para-caecal in 4(16%), subcaecal 2(8%), preileal 2(8%), retroileal in 1(4%).

**Conclusions**

Commonest position of the appendix is retrocaecal followed by pelvic position which resembles western studies. The sample of the study was patients diagnosed with acute appendicitis at some stage of life. So application of these findings to the normal population is questionable.

**EP 09**

**ANTIMICROBIAL SUSCEPTIBILITY PATTERN IN DIABETIC FOOT ULCERS- A SINGLE UNIT EXPERIENCE**

YP Lankeshwara, KTD Kahaduwa, A Arulprashanth, MP Hettiarachchi, MRN Cassim, SM Wijeyaratne

University Surgical unit, Faculty of Medicine, University of Colombo.

**Introduction**

Diabetic foot ulcers are a major health problem and a leading cause of hospitalization for patients with diabetes mellitus worldwide. These ulcers sometimes lead to amputations if they are not treated properly. This study was conducted to identify bacterial pathogens and their antimicrobial susceptibility pattern.

**Material and Methods**

A cross-sectional study was conducted for a period of 2 months. 67 wound swabs from 67 consecutive patients with diabetic foot ulcers were investigated using Gram stain, culture and antibiotic sensitivity test.

**Results**

Out of 67 wound swabs, polymicrobial growth was seen in 10.4%(7) and no growth in 14.9%(10). Prevalence of Gram negative organisms (58%, 29) was found to be more than Gram positive organisms (42%, 21). Pseudomonas aeruginosa (40%, 20) was most common isolate causing diabetic foot infections followed by Staphylococcus aureus (28%, 14), Coliforms (18%, 9), Acinetobactor (8%, 4), Enterococcus (4%, 2) and Streptococcus (2%, 1). 31% of the Gram negative bacilli were Extended Spectrum Beta Lactamase (ESBL) producers. 79.3% (23) of Gram negative organisms were sensitive to amikacin and 62% (18) were resistant to ciprofloxacin. 92.8% (13) of Staphylococcus aureus organisms were sensitive to vancomycin and teicoplanin. Resistance to methicillin was also seen in 92.8% (13) of Staphylococcus aureus species.

**Conclusions**

Prevalence of multidrug resistant organisms is increasing in patients with diabetic foot ulcers. Identification of antimicrobial susceptibility pattern and managing accordingly is important. Measures to prevent cross-infection should be taken by patients and health care providers.

**EP 10**

**EPIDERMAL GROWTH FACTOR- A WAY FORWARD IN PREVENTING AMPUTATIONS IN DIABETIC PATIENT**

WLADA Prasanna, A Arulprashanth, YP Lankeshwara, MP Hettiarchchi, A Weerasekara, KTD Kahaduwa, SI Liyanage, MRN Cassim, SM Wijeyaratne

University Surgical unit, Faculty of medicine, University of Colombo

**Introduction**

Significant proportions of patients with diabetes undergo major amputation due to its complications. Scarcity of growth factors at the site prolongs the healing of the ulcer. This study was conducted to investigate the effects of a growth factor.

**Methods and Materials**
The sample consists of 15 patients diagnosed with diabetic foot ulcers Wagner grade 3 and 4. Seventy five µg of growth factor diluted in 5 ml, 3 times a week, intra and perilesional way and 10 doses were applied. The results were analyzed after 6 weeks of application.

Results
Four patients could not finish the treatment. One died due myocardial infarction after 5 doses, two underwent amputations after 2, 3 doses and one patient abandoned the treatment. Eleven patients completed the treatment. All patients were males and mean age was 63(56-83). Mean duration of diabetes was 14(4-37) years. Area of the lesion in 5 patients were 30cm². Twelve lesions (80%) were less than 3 months. Eight lesions (57%) were ischaemic. At 6 weeks completion of the treatment one patient achieved complete healing and 7 (73 %) achieved > 75% of granulation at the site of the lesion and 3(27%) achieved >50% of granulation at the site.

Conclusions
Growth factor appeared to be another option in the prevention of diabetic limb amputation in high-risk patients.

EP 11
TOPICAL OZONE THERAPY: A NEW DIMENSION IN WOUND CARE
KTD Kahaduwa, A Arulprashanth, YP Lankeshwara, MP Hettiarachchi, A Weerasekara, WLADA Prasanna, MRN Cassim, SM Wijeyaratne
University surgical unit, Faculty of Medicine, University of Colombo

Introduction
Gaseous Ozone manifests bactericidal, virucidal and fungicidal actions which may make it a treatment of choice in certain conditions and an adjunct to treatment in others. High lipid content of the cell walls of bacteria may explain their sensitivity and eventual demise, subsequent to ozone exposure. Ozone may also penetrate the cellular envelope, directly affecting cytoplasmic integrity, disrupting any one of numerous levels of its metabolic complexities.

Material and Methods
A fully automated medical ozone generator harboring a corona discharge mechanism was produced locally (50mg per hour on air). Patients with high Septic wounds (not responding to advance antibiotic regimens and standard wound care for two weeks) requiring amputation but not consenting for the procedure were recruited with written informed consent. Gaseous ozone was introduced every 25 minutes on to the wounds after covering the wounds with sterile gauze and polyurethane bags with a good air tight seal. A session comprised of 4 days of continuous therapy. Cultures were taken at the end of 2nd session and the wound was assessed for further intervention.

Results
Please refer to table on page 82

Conclusion
Ozone can be considered as a good adjunct to the usual methods of wound care. However further evaluation and research is needed in to this new dimension.
EP 12
POST RENAL TRANSPLANT ENDEMIC FUNGAL INFECTION; A CASE SERIES
N Herath, N Madarasingha, R Dassanayake, J Arudchelvam, P Jayasekara, C Weerasinghe.

Introduction
Kidney transplant (KT) recipients are at increased risk of fungal infections (FI) which can present atypically. We report a series of such unique FI.

Material and Methods
Demography, primary renal disease, clinical features, investigations and treatment were reviewed in 6 KT recipients presented with FI to teaching hospital Anuradhapura from January 2014 to April 2015.

Results
There were six patients with 5 males (83.3%). Mean age was 50.2 years (42 - 55). All were farmers from north-central (NC) province. Primary renal diseases were; hypertensive nephrosclerosis (2/6), snake bite (2), chronic pyelonephritis (1) and CKDu (1). Four patients had KT from live donors. Mean duration following KT was 25.7 months (18 – 36). All patients were on prednisolone, MMF and calcineurin inhibitors. One was treated for rejection. Four patients had CKD3 when they acquired FI. All patients had multiple skin lesions (3-5) involving hands and feet. One had lung involvement. All were initially treated with antifungal therapy followed by local excision. All histology showed granuloma and fungal hyphe. Fungal culture was positive in all. Two patients had local recurrence needing further treatment.

Conclusions
Patients With FI present with gradually enlarging skin nodules with suppuration, mimicking bacterial abscess which may result in delayed diagnosis. Clinicians need to be aware of this because early diagnosis, complete excision and antifungal therapy results in excellent outcome. Further microbiological evaluations are being done to identify the type of fungus in our series.

<table>
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<th>Pre Rx condition</th>
<th>Gender</th>
<th>Age</th>
<th>Co morbidities</th>
<th>WBC</th>
<th>ESR</th>
<th>Culture</th>
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<td>DM,HT,IHD</td>
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<td>36</td>
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AN ANALYSIS OF BREAST CONSERVATIVE SURGERY. SINGLE CENTRE STUDY
KI Panditherathne, PHC Jayanath S Aluwihare BNS Jayawardhana
Base Hospital Wathupitiwala, Sri Lanka

Introduction
Breast Conservation Surgery (BCS) in suitable patients, gives, comparable overall and cancer free survival with superior cosmetic outcome than traditional Total Mastectomy. However, in Sri Lankan surgical practice BCS is not widely offered to patients, possibly, due to concerns of adequacy of resection and satisfactory cosmetic outcome.

Objective
We set out to address these concerns by conducting an analysis of BCS with regard to the adequacy of resection margins (as the most important surgically modifiable prognostic factor) and patient satisfaction.

Material & Methods
A retrospective study was conducted including all cases of BCS performed at our unit n=30 during the period from 1/10/2014 to 1/7/2015. (T1 n=10, T2 n=20) Resection margins of 1mm on histology was considered adequate. A telephone survey was conducted to ascertain patient's perception of body image. Patients who underwent any other primary mode of treatment n=29, due to patient preference, tumour more than 25% of breast volume, multicentricity and elderly frail patients were excluded.

Results
Twenty nine (96.6%) patients who underwent BCS had RO resection. One patient who had BCS for tumour recurrence following Skin Sparing Mastectomy and TRAM reconstruction had inadequate margins. All patients n=25 in the telephone survey were satisfied with the cosmetic outcome.

Conclusions
In our setup, BCS remains a feasible alternative to Total Mastectomy with regard to adequacy of resection margins and cosmesis, in selected patients, although its not practiced widely.

PRACTICES RELATED TO APPENDICECTOMY. IS IT UNDERVALUED?
V Thanusan, DI Samaraweera, S Sivaganesh, Professorial surgical unit, National Hospital of Sri Lanka

Introduction
Appendicectomy is the commonest laparotomy performed in general casualty theatre. Practices related to this procedure were assessed in this audit.

Material and Methods
All laparotomies during a period of six weeks at the National Hospital of Sri Lanka were assessed to identify patients undergoing emergency appendicectomy. Follow up was done for a 30 days to identify associated morbidities.

Results
Ninety laparotomies were performed during this period of which 73%(n=66) were Appendicectomies. Patients’ median age was 24(12-52) years, male: female ratio of 0.7 and 89.4%(n=59) belonged to ASA-I category. Most surgeries (83%(n=55)) were performed during working hours with a median waiting time of 14(1-168) hours. Laparoscopic access was used in 18 instances with a 30%(n=5) conversion rate. Registrars performed 75%(n=36) of open surgeries and 28%(n=5) of laparoscopic procedures. Appendicular perforation was observed in 8%(n=5) procedures. Median postoperative hospital stay was 2(1-30) days. 30 day follow up demonstrated complication rate of 6%(n=5) including 2%(n=1) surgical site infections and zero mortality.

Conclusions
Previous studies done with regard to same condition have revealed postoperative complication rates of 17.2% which is greater compared to our study (6%). The median hospital stays were comparable (2.5 vs 2 days). Waiting time for surgery was 7.5 hours which was lower than the 14 hours demonstrated in ours. Percentage of Laparoscopic surgeries performed in our study (27%) seemed acceptable compared to international figures reaching up to 50.5%. However the 30% conversion rate compared to 9.5% verified in meta-analysis may be due to lack of experience and overenthusiastic laparoscopic attempts.

**EP 15**

**OUTCOME FOLLOWING LAPAROTOMY; WHAT SURGICAL PRACTICES NEED MODIFICATION**

DI Samaraweera, V Thanusan, AR Fernando, S Sivaganesh,
Professorial surgical unit, National Hospital of Sri Lanka,

**Introduction**

Emergency laparotomy is a standard practice for patients presenting to the emergency department with an acute abdomen. It results in mortality and morbidity, some which may be related to modifiable practices associated with the procedure.

**Material and Methods**

Data of all (n=90) emergency laparotomies performed, including the 30-day follow up, at the National Hospital of Sri Lanka during a six week period was collected.

**Results**

Patients median age was 28 (12-72) years, with a male:female ratio of 1:0.6 and 82.2% (n=74) belonging to ASA-I category. Diabetes was present in 10% (n=9) while 10% (n=9) smoked. Most laparotomies, 79% (n=71) underwent during daytime time with a median waiting time of 13 (1-168) hours. Surgical safety checklist (SSC) was used in 62.2% (n=56) surgeries. Preoperative antibiotics were used in 96% (n=86) of instances while only 11% (n=10) received DVT prophylaxis.

Appendicectomy was the commonest 73% (n=66) procedure carried out. Laparoscopic access was used 23% (n=21) times. Six patients underwent bowel resection. Preoperative perforation of an abdominal organ was observed 17% (n=15) times. There was a 30-day mortality rate of 4% (n=4). Postoperative critical care admission was observed during 9% (n=8) of the instances. Ten percent (n=9) developed postoperative complications including 4% of surgical site infections (SSI). Median postoperative stay was 3 (1-30) days.

**Conclusions**

Lower rates of 30-day mortality (7% vs 14.9%), SSI (4% vs 9%) and postoperative stay (3 vs 11 days) were observed in this study compared to international statistics. Furthermore lower rate of critical care admissions were noted compared to international figures (9% vs 9.7–87.5%). Regular use of SSC and DVT prophylaxis may need emphasis.

**EP 16**

**DESCRIPTIVE STUDY ON CHARACTERISTICS OF FOOT ULCER DISEASE AMONG DIABETIC PATIENTS**

L.A. Kapila Samarasekara, M.S. Hameed, Arinda Dharmapala, V.K.G. Chathuranga
Department of Surgery University of Peradeniya, Sri Lanka

**Introduction**

One of the most important and disabling complications of diabetes mellitus is diabetic foot ulcers (DFU). We conducted this descriptive cross sectional study to investigate the other complications of patients with diabetic foot ulcer disease.

**Material and Methods**

This descriptive study included patients with diabetic foot disease admitted to professorial surgical unit teaching hospital Peradeniya, over a period of six months. A pre designed data collection sheet was utilized to collect data.

**Results**
Our study included 42 patients. 22 patients were female (52.4%), while 20 were male (47.6%). Mean age of the cohort was 59 years. 22 patients (52.4%) had family history of diabetes. The mean duration of diabetes in the cohort was 114 months, while mean duration of diabetic foot disease is 13.7 months. 11 patients (26.2%) had a previous history of amputations in one of the lower limbs. 20 patients (47.6%) were found to have cardiovascular comorbidity. 23.5% of patients had absent distal lower limb pulses. Renal assessment revealed 21.4% patients to have albuminuria, 26.2% patients with elevated blood urea levels and 9.5% patients with elevated serum creatinine levels. 16.7% patients had either proliferative or non-proliferative retinopathy features.

Conclusions
It is important to conduct a complete review of systems by referring to the appropriate specialists. To conclude, a multidisciplinary approach can confer better treatment and outcome with respect to DFU.

EP 17
IMPACT OF ALCOHOL ON PATIENTS WITH HEAD INJURY – A PRELIMINARY STUDY
NL Weerasinghe, SP Athiththan, S Wadanamby, HDK Wijayatilake

Introduction
Traumatic brain injury (TBI) is a serious public health problem in Sri Lanka. Alcohol consumption is associated with drowsiness, impaired judgment, decreased perception and coordination that lead to increase in motor vehicle speeds.

Materials and Methods
All patients admitted to Neurosurgical Unit NHSL with TBIs (moderate-severe head injury and/or pathological finding on CT) during the month of May 2015 were analyzed. Demographic data, mode of injury, GCS, alcohol use, management and outcome were recorded. Data were analyzed with Independent sample T test and Chi Square test using SPSS software.

Results
Among the 150 patients 83.3% were males where 47.3% (71) patients have consumed alcohol. Alcohol consumption among the RTA subjects was 55% (54). The highest percentage of alcohol consumption was among motor bike drivers with 72% (47). Average GCS was lower (10) in alcoholic patients when compared to non-alcoholics (11) but, it was not statistically significant (p 0.15). This difference was observed even at discharge 13 verses 14 respectively. Intensive care unit or high dependency unit ICU/HDU admissions were significantly higher (p 0.037) among alcoholics (58%) than non-alcoholics (42%). Requirement of any form of neurosurgical intervention was not significantly higher (p 0.299) among alcoholics than non-alcoholics (42% verses 37%).

Conclusion
Alcohol consumption significantly increased the requirement of ICU/HDU care leading to enhanced hospital cost. Alcohol consumption may also affect the performance at work due to low GCS. Further studies with larger sample size will be required to validate the above findings.

EP 18
PROSPECTIVE ANALYSIS OF 50 CONSECUTIVE PATIENTS ADMITTED WITH A HISTORY OF INTIMATE PARTNER VIOLENCE (IPV) TO GENERAL HOSPITAL POLONNARUWA(GHP) WERE ANALYZED OVER 8 MONTHS PERIOD.
WAK Weerawardena, NPHN Dharmasena, DC Dhamuksha, AS Kodikara, KG M Jeevan I.
General Hospital Polonnaruwa

Introduction
IPV is a preventable major cause for serious injuries. Analysis of patients with IPV is helpful for preventive programs.

Materials and method
We analyzed all the patients admitted with history of IPV to GHP from 15/11/2014- 14/6/2015 with ethical clearance. We analyzed age, sex, cause, weapon, alcohol influence, injury severity, time and place of incident.

Results
There were 50 female victims and 50 male assailants. Age range of females was 18-63 years (mean 32) and in males 22-64 years (mean 37). There was one pregnant patient. 30(60%) assailants were under the influence of alcohol at the time of incident. 11(22%) were known psychiatric patients. Out of 48 incidents causes were extra marital affairs 15(31%), sudden arguments 09(19%), financial issues 06(12.5%), alcohol 06(12.5%), family problems 06(12.5%), children as a reason 03(6.3%), psychiatric illness 02(4.2%), sexual reasons 01(02%). Out of 48 incidents weapons used were hand 20(42%), house hold objects 12(25%), clubs 09(19%), knife 05(10%), stones 02(04%). Injuries were contusions/abrasions 33(66%), lacerations 06(12%), bone fracture/joint dislocation 5(10%), cuts 04(08%), hearing defects 02(04%), eye trauma 01(02%). 42(84%) of incidents taken place at home. 31 of 38(65%) taken place between 12noon-12 midnight.

Conclusions
All the victims were females. 60% of assailants were under alcohol influence. Extra marital affairs were the highest (31%) cause for violence. Sudden arguments caused 19% of violence. House hold objects were the weapon in (25%) of cases. Proper counseling of the community regarding alcohol, sudden arguments, psychiatric illnesses and social inter relationship is necessary to prevent IPV.

EP 19
TOTAL MESOCOLIC EXCISION AND CENTRAL VASCULAR LIGATION IN TERTIARY CARE CENTER
DD Weerasekera1, AA Pathirana1 , T Wijiratne1, BD Gamage1, HKKT Duminda2, A Kamaladasa2, N Harivallavan1
1Department of Surgery, faculty of Medical Sciences, University of Sri Jayewardenepura
2University Surgical Unit, Colombo South Teaching Hospital

Introduction
Total mesocolic excision (TME) and central vascular ligation (CVL) is the potential curative surgical technique in stage II and III colonic adenocarcinoma. Minimum numbers of lymph nodes are defined as 12. The lymph node ratio is a better prognostic indicator than the number of positive lymph nodes. This study is to identify lymph node yield and ratio in technique of TME and CVL.

Material and Methods
Prospective descriptive study, data were collected over period of 8 months. All patients underwent TME and CVL objectively.

Results
13 patients underwent surgery which includes 4 female and 9 males. The mean age of cohort was 60 years (range 40-86). There were 6 right hemicolectomies, 3 extended right hemicolectomies and 4 sigmoid colectomies. Majority of patients had moderately differentiated adenocarcinoma one had mucinous adenocarcinoma and two had poorly differentiated tumour. The average of lymph node harvested was 20 while average positive lymph node was 1.3. The lymph node ratio was 0.06. In pathological staging, 8 (61.5%) had Dukes C and 38.5% of patients had Dukes B tumour. None of patients had clinical anastomotic leak.

Conclusions
The TME and CVL is emerging trend in colonic surgery for adenocarcinoma. Further studies are needed to define adequate number of lymph nodes to be harvested and need long term follow up to assess the prognosis following in TME and CVL.

EP 20
A STUDY IN TO THE DETECTION OF UNDERLYING INTRA-ARTICULAR PATHOLOGIES IN PATIENTS WITH ACUTE POST-TRAUMATIC KNEE HAEMARTHROSIS
P Bandarage, PGDMC De Almeida, N Dassanayake Colombo South Teaching Hospital,Sri Lanka
Introduction
Post-traumatic knee haemarthrosis is a common presentation associated with intra-articular pathologies including ligament injury, peripheral meniscal damage, patellar fracture or dislocation etc. The study assesses the frequency of underlying knee injuries detected on the initial presentation by clinical examination and x-ray of the knee as done routinely local setting.

Material and methods
This is a descriptive observational study conducted in the accident service of Colombo South Teaching Hospital on patients presenting with acute post traumatic knee haemarthrosis. Injuries were assessed by the consultant orthopaedic surgeon by clinical examination and x-ray. Types of associated knee pathologies and their frequencies were analyzed.

Results
Seventy patients of mean age of 44 years with a male predominance (67.2%) presented with post-traumatic knee haemarthrosis within the duration of study. Thirty (42.8%) were detected to have intra-articular pathologies. Seven ACL injuries (10%), 9 non-displaced patella fractures (12.8%), 6 non-displaced tibial plateau fractures (8.3%) 3 meniscal tears (4.28%), 2 each of PCL and MCL injuries (2.86%), and one patella dislocation were detected.

Conclusions
Sensitivity in detection of intra-articular pathologies with clinical examination and x-ray, which is the freely available mode of imaging in the accident service setting were limited. Examination under anaesthesia and sensitive imaging modalities like MRI may be indicated for definitive diagnosis depending on individual case scenarios on which further studies are needed.

EP 21
DESCRIPTIVE STUDY ON THE PATTERN OF THYROID DISEASES AMONG PATIENTS ATTENDING TO THE SURGICAL CLINICS, TEACHING HOSPITAL, BATTICALOA
Thayaparren R, Jeepara P
Teaching Hospital, Batticaloa, Sri Lanka.

Introduction
Thyroid diseases are common in Sri Lanka and euthyroid multinodular colloid goiter are more common.
Objective To identify the pattern of thyroid disease among the patients attending to the single surgical unit at the teaching hospital, Batticaloa.

Material and Methods
Data were collected using an predesigned interviewer based questionnaires from 1st of June to 31st of December 2014 prospectively and data were analyzed using the SPSS analytical package (version18).

Results
148 patients were included in the study. 141 (95.3%) out of 148 were females. Mean age were 29 (+ 0.5) years. The identified clinic-radiological pattern were multi nodular goiter (MNG) [64, (43.2%)], diffuse goiter [48,(32.4%)], solitary nodule [35,(23.6%)] and thyroglossal fistula [1,(0.7%)]. The functional patterns were euthyroid [82, (55.4%)], hypothyroidism [36, (23.6%)] and hyperthyroidism [31, (20.9%)]. The overall pathological pattern were hyperplastic [82, (55.4%)], inflammatory [46,(31.1%)], neoplastic [19,(12.8%)] and developmental abnormalities [1,(0.7%)]. 48 (75%) out of 65 patients with MNG were hyperplastic. Inflammatory [31, (64.6%)] were common among diffuse goiter in young females (mean age: 33 years). 23 (65.7%) out of 46 inflammatory were hypothyroid. 19 (12.8%) out of 148 were neoplastic.
Statistically significance was noted between morphological and functional patterns, morphological pattern and pathological pattern (P<0.05).

Conclusions
Chronic autoimmune thyroiditis was common among diffuse goiter in young females. Most were biochemically hypothyroid state.

EP 22
COMPARISON OF TRANSVERSE AND PURSE-STRING SKIN CLOSURE AFTER LOOP ILEOSTOMY REVERSAL:
RESULTS FROM A RANDOMIZED CONTROLLED STUDY
BNL Munasinghe, BDW Jayamanna, I Upanishad, KI Deen
Department of Surgery, Faculty of Medicine, University of Kelaniya, Sri Lanka.

Introduction
Surgical site infection (SSI) is a recognized complication following loop ileostomy reversal. The purse-string closure (PSC) technique was introduced to reduce SSI, but cosmesis was a concern. This study compares SSI and cosmetic outcome following transverse closure (TC) and PSC techniques, after loop ileostomy reversal.

Material and Methods
From June 2009 to November 2014, a randomized controlled trial evaluated 65 patients (36 male: 29 female; median age 50 years, range 24 to 78 years) assigned to either TC (n= 32) or PSC (n=33). Patients were randomized using computer generated random numbers and the study was performed in double-blind fashion. The number of study subjects was designed to generate a power of 90%. Patients were followed up in a clinic at 2, 4, 6, 12, 24 and 52 weeks. The end-points were SSI and cosmetic outcome, which was assessed by a blinded observer using the patient and observer scar assessment scale (POSAS) [patient component score 6 to 60, observer component score 6 to 60]. Data were analyzed with SPSS 21 (Chicago, USA), significance was assigned to a P value <0.05 and Ethical Committee approval was obtained.

Results
Both groups were comparable for age, gender, body mass index, and co-morbidity. The median duration to reverse ileostomy was not significant (TC 141 days [range 57-192] vs PSC 156 days [range 94-278]; p = 0.254). The rate of SSI after TC was 6.3% and PSC was 6% (p=0.68). Time to complete healing after TC and PSC were not different (median; TC- 4 weeks [2—24]; PSC- 5 weeks [2-552] ; p=0.7). Although POSAS patient and observer scores were not significant at 12 (p=0.47 & p=0.12) and 24 (p=0.78 and p=0.53) weeks after ileostomy reversal, scores were significantly different at 52 weeks (p=0.03 & 0.04) with better cosmesis after TC. Hospital stay after TC and PSC were not different (p=0.43).

Conclusion
There was no difference in SSI between TC and PSC after reversal of a loop ileostomy. However cosmesis was better in TC compared with PSC.

EP 23
EVALUATING EFFECT OF PAPAW PULP ON DEBRIDEMENT OF ACUTE DIABETIC WOUNDS: A RANDOMIZED CONTROLLED PILOT STUDY
M H Samarasinghe1, S Sivaganesh2, S Senevirathne2, D N Samasasekera2
1National Hospital of Sri Lanka
2Department of Surgery, University of Colombo, Sri Lanka

Introduction
Diabetic wounds consist of 15% of all chronic wounds and may end up in amputations. In their management, repeated wound toilets are often required. Enzymatic debridement has emerged as an alternative but the high cost involved has rendered it almost impractical to be used in the developing countries due to financial constraints. In our study, we evaluate the debridement effect of papaw pulp as a possible cheap alternative.

Material and Methods
Twenty patients with diabetic wounds without evidence of vasculopathy were recruited and randomized into test and control arms equally. Both groups underwent a single surgical debridement and intravenous antibiotics. During the first week, wounds of both groups were dressed with 1% sodium hypochlorite solution for infection control. Second week, wounds in the control group were dressed with normal saline whereas the wounds in the test group were dressed with papaw pulp. At the beginning and end of each week, the proportions between the wound surface area and amount of slough were assessed using digital photography and compared using Wilcoxon test.
Results
End of the first week, test and control groups showed similar slough patterns. End of the second week, test group showed a significant reduction in slough compared with the control group.

Conclusions
Papaw pulp showed significant debridement effect which qualify it as a possible cheap alternative for repeated wound debridement or commercial enzymatic debridement in acute diabetic wounds.

Result
Whirlpool sign due to twisting of the SMV around SMA was documented in all patients, whereas UGIE contrast study confirmed the malrotation of gut but failed to diagnose the midgut volvulus. Exploration confirmed the presence of midgut volvulus in all patients.

Conclusion
Our pilot study suggest that, ultrasound doppler is a very useful tool in emergency to rule out midgut volvulus in suspected cases of malrotation of gut and hence can avoid dreadful complication. Though a detailed study is needed to reach any conclusion.

EP 25
MORPHOLOGICAL CHARACTERISTICS OF THE COMMON HEPATIC ARTERY (CHA), PORTAL VEIN (PV) AND THE HEPATIC VEINS (HV): A CADAVERIC STUDY
V Abeyasurya 1, BMCM Balasooriya 2, AMDK Alahakoon 2, SP Senevirathne 2, R Hasan 3
1 Senior Lecturer & Consultant Surgeon, Dept. Anatomy, Faculty of Medicine, University of Kelaniya, Sri Lanka.
2 Demonstrator, Dept. Anatomy, Faculty of Medicine, University of Kelaniya, Sri Lanka.
3 Senior Lecturer Dept. Anatomy, Faculty of Medicine, University of Kelaniya, Sri Lanka.

Introduction
The anatomy of the CHA, PV and HV is interesting. It is important in Hepato-pancreatico-biliary surgery. This study analyses the morphology of the CHA, PV and HV.

Material and Methods
Thirty three fresh cadavers were dissected to demonstrate the anatomy of the CHA, PV and HV. All the vessels were dissected from its commencement to its extra hepatic terminal branches up to the liver. Ethical clearance was obtained. No conflict of interest.

Results
In all the specimens, the CHA commenced from the coeliac axis. Thirty specimens (91%) had the CHA
divided into the right gastric (RGA), gastro duodenal (RGDA) and the proper hepatic (PHA) arteries at a distance of 3.5 to 4.0 cm from its commencement. Three specimens (9%) had the right gastric artery originating from the gastro duodenal artery. Majority 32/33 (97%) demonstrated the division of PHA into the right and left hepatic arteries at the level of the hilum of the liver. However 1/33 (3%) had the left hepatic artery commenced from the left gastric artery. In any of the specimens neither the PV nor HV demonstrated any abnormal variations throughout their extra-hepatic course.

Conclusion
Anatomical variations in the CHA and its branches are not infrequent. However variation in PV and HV were rare. Knowledge of anatomic variations of the extra-hepatic vasculature is important in hepato-pancreatico-biliary surgery.

DIFFUSE TYPE HEPATOMA – A PROSPECTIVE ANALYSIS
IHDS Pradeep, RC Siriwardana, MANiriella, AS Dassanayake, CAH Liyanage, B Gunathilleke, DS Payatunge, HJ de Silva

Introduction
Data on diffuse type hepatocellular carcinoma (HCC) are rare. Incidence of HCC in Sri Lanka is rising and majorities are related to non alcoholic fatty liver disease (NAFLD). The study was planned to compare nodular and diffuse type HCC.

Material and Methods
Prospectively collected data of 227 patients with HCC from July 2011 to July 2014 were analyzed. Diffuse type cancer was defined as a tumour without convex margin, diffusely infiltrating the hepatic parenchyma. There were 45 (20%) cases. The baseline liver functions, etiology, treatment and the outcome were compared with nodular type cancers.

Results
All cases except one were negative for infective hepatitis. There was no difference in the age (63 vs. 62 years, p=0.937) and gender. Low body mass index (24 vs. 22, p=0.009) and history of significant alcohol intake (39% vs. 67%, p=0.001) was associated with diffuse type cancers. The baseline liver functions and the clinical indicators of cirrhosis were similar in two groups. Diffuse cancers had higher alpha feto protein levels and higher incidence of major vascular invasion (14% vs. 80%, p<0.001). Large proportion (27% vs. 77%, p<0.001) of diffuse cancers were not candidates for active treatment. Overall survival was poor in diffuse type (4.7 vs. 25 months, p<0.001). None of the prognostic factors or treatment had a significant impact in the outcome of diffuse HCC.

Conclusion
Diffuse HCC are common in our cohort. Alcohol consumption is a risk factor. These tumours have high AFP levels, major vascular invasion and a grave outcome irrespective of treatment.

DUODENAL DIVERTICULI: DO THEY CAUSE CBD OBSTRUCTION?
LM PM Bandara, NNM Nawarathna, FN Fernandopulle, DSP Jayatunge, RC Siriwardana, CAH Liyanage
1Hepato Pancreatico Biliary and Liver Transplant Unit, North Colombo Teaching Hospital, Sri Lanka
2Gastroenterology and Hepatobiliary Unit, National Hospital, Sri Lanka

Introduction
We note that some patients, who had dilated Common Bile Duct (CBD) and underwent ERCP, had duodenal diverticuli (DD). DD are rare cause of mechanical obstruction of extrahepatic biliary tree.

Objectives
1. To ascertain the incidence of DD in all patient who underwent ERCP.
2. The effect of DD on the biliary tree.

Material and Methods
All patients who underwent ERCP at Gastroenterology and hepatobiliary unit at NHSL and the Professorial Surgical Unit of NCTH were included in the study. The position of the diverticuli, whether there was associated stones, whether diverticuli caused dilatation of CBD without stones were assessed.

Results
Out of 933 ERCP patients, from 2013 January to 2015 July, 101(10.5%) had DD. Median age of presentation 62years, Female: male ratio 58:43. Out of 101 DD, 94.1% (95) were Juxta Papillary Duodenal Diverticuli(JPDD) (23/95 were type 1, 22/95 were type 2 and 50/95 were type 3).

Conclusion
1. DD are associated with dilatation of CBD even without stone formation.
2. DD probably cause increase resting pressure in CBD and stagnation in the biliary tree which can result in an increase in CBD stone formation.
3. A manometry study of the papilla in patients with DD will give the answers.

Primary splenic cysts are rare lesions. Total splenectomy was once considered the management of choice. However the critical immunological role of the spleen favours spleen-preserving options. The best laparoscopic spleen-preserving technique has not been established. Aim of this report is to share the feasibility and safety of laparoscopic partial excision of epidermoid splenic cyst.

Materials & Methods
30 year old female presented with 5 months history of progressive left upper quadrant pain and early satiety. Contrast CT scan revealed 16cm x13cm x 17 splenic cyst situated in the anterior and superior portion of the spleen. Blood results including parasitic antibody tests were unremarkable except raised CA 19.9 of 244. Patient was placed at 45⁰ right lateral position. 12mm Supra umbilical and 3 left upper quadrant ports were used. Contents were aspirated and the cyst wall excised using Harmonic Ace®+7 close the splenic tissue. The Cyst wall attached to the splenic tissue was left behind. Excised cyst wall was extracted through the umbilical port. Omentum was mobilised and brought in to the cyst space. Splenic bed was washed out with saline and 20ch Robinson drain was placed.

Results
Patient had uneventful recovery and discharged after 48hours. Histopathology confirmed congenital epidermoid cyst.

Conclusions
Laparoscopic partial cyst excision can be performed safely and effectively for non-parasitic splenic cysts. This is relatively straightforward in anteriorly placed cysts. Central and posterior cysts may require partial or total splenectomy. But splenic preservation should be considered whenever it is feasible.
1 Teaching Hospital Colombo South, 2 Teaching Hospital Kandy

**Introduction**

SMA syndrome is an rare entity in digestive tract. The cause thought to be due to compression of the third part of the duodenum (D3) between the aorta and the superior mesenteric artery. Aortomesenteric angle is usually 38-56° but if it is approximately 6-25° can cause compression of the D3 and called SMA syndrome. Females are affected more than males. Clinical presentation predominantly is chronic upper small bowel obstruction symptoms.

**Materials and methods**

Clinical data collected retrospectively from GI Surgical unit from 2000-2014. Five patients with SMS syndrome were diagnosed among 20,276 GI surgical referrals. Diagnosis was made clinically and subsequently they underwent barium meal and upper GI endoscopy. Outcomes were assessed for acute and chronic complications. They were seen in the clinic 1,6 months and 1 year post operatively.

**Results**

The five patients were between 52-86 years of age (mean age 66.2 years). Female to male ratio was 3:2. The first patient underwent gastrojejunostomy and he developed severe loss of appetite. The other four patients underwent Duodenojejunostomy and they didn’t have recurrent symptoms. Mean hospital stay was 5.6 days. One (20%) had prolonged ileus and one (20%) had superficial wound infection. No mortality reported.

**Conclusion**

SMA syndrome is rare entity and duodenojejunostomy is a safe option. We do it as open surgery but we plan to do laparoscopically in future.

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BKS Bulathsinhala, US Medagodahetti, J.L.S.Kanchana, M.Gunasekara
General Hospital Kalutara (GHK)

**Introduction**

Dyspepsia is a troublesome symptom encountered in surgical practice. Hiatus hernia(HH) is a common finding in upper gastrointestinal endoscopy (UGIE) performed in dyspeptic patients. Our aim was to assess the prevalence of HH in dyspeptic patients, since not much of the Sri Lankan literature was available.

**Materials and methods**

Analysis was done on 108 patients, who met our inclusion criteria and underwent UGIE in a single surgical unit at GHK from 1st November 2014 to 31st March 2015. Endoscopic profile was analyzed and presence of HH considered if grading is 2 or more according to Hill’s classification.

**Results**

Hundred and eight patients (67 males: 41 females) with mean age of 49 years underwent UGIE for dyspeptic symptoms.

Forty four (40.74%) patients had normal UGIE findings due to functional dyspepsia.

Prevalence of HH in our study group(108) was 36.11%(39). Among 64 positive UGIEs, HH was seen in 60.93%(39). Rest had findings like peptic ulcers, mucosal erosions, gastritis, etc.

Among patients with HH, 18(46.15%) had HH alone and 21(53.8%) had simultaneous other organic pathologies. There were 22 males and 17 females with HH. The mean age was 46.7 years. Three patients had biopsy proven malignancies.

**Conclusions**

Significant proportion(p<0.05) of patients who underwent UGIE for dyspepsia had HH. It was even higher when simultaneous pathologies occurred. It was common in middle aged group with slight male preponderance. Since incidence of HH is rising, preventive strategies and more definitive treatment
modalities should be entertained.

EP 31
EVALUATION OF ULTRASOUND FINDING IN DIAGNOSIS OF ACUTE APPENDICITIS.
S Anton Swaranan, T Wijerathna, TM Samarasinghe, SKKT Duminda, DPGL Bandara,
N Harivallavan
University Surgical Unit, Colombo South Teaching Hospital, Srilanka.

Introduction
Appendectomy is one of the most common surgeries in the casualty list. Although there are various laboratory tests and imaging studies are available to improve the accuracy of diagnosis. The rate of negative appendectomy is still about 15-30%. This study is to analyze the reliability of ultrasound finding in diagnosis of acute appendicitis.

Material and Methods
Descriptive study done on 136 patients who were presented with right iliac fossa pain by using a structured proforma.

Results
Males accounted for 68 (50%) of the total of 136. The average age of males was 24.4±12.9 years and average age of females was 27.6±15 years. The clinical diagnosis of acute appendicitis was made on 106 patients. Of which 86 were highly suggestive of acute appendicitis according to the Alvarado score. The ultrasound findings were positive for 33% of the cohort for acute appendicitis. Surgical treatment was provided for 115 of which 94 had inflamed appendix, 6 had appendicular abscess and 2 had appendicular mass. There was statistically significant difference between USS finding and clinical diagnosis (p=0.03) and intra operative findings (p=0.03).

Conclusions
USS finding does not appear to be useful in the diagnosis of acute appendicitis in the routine clinical practice. So a refined study with a single experienced sonographer would be necessary.

EP 32
QUALITY ASSURANCE IN COLONOSCOPY – EXPERIENCE OF A GASTROINTESTINAL SURGICAL UNIT
MSB Tillakaratne, TGA Priyantha, BCARP Bulathsinghela,
CT Keppetiyagama
Colombo South Teaching Hospital

Introduction
A high quality endoscopy procedure ensures that the patient receives an indicated procedure, that correct and clinically relevant diagnoses are made, endoscopic therapy is properly performed, and that all these are accomplished with minimum risk. Guidelines for quality assurance have been developed by several leading international organizations such as American Society for Gastrointestinal Endoscopy (ASGE).

Material and Methods
Our objective was to compare colonoscopy practice with standard guidelines.
Data were collected prospectively from the colonoscopy procedures carried out in our unit over a period of 6 months starting from January 2015. Ethical clearance was obtained from the ethical review committee of our hospital. We compared our data with the quality indicators published by the ASGE.

Results
Fifty-one patients underwent colonoscopy during this period. Twenty eight were male (55%) and 23(45%) were female. Average age of the patients was 54(20 to 82) years. Colonoscopy was carried out in an endoscopy room with pulse oxymetry monitoring and sedation. Average bowel preparation score was 7 (4 to 9). In 4% of the patients the procedure was abandoned due to poor bowel preparation. Caecal intubation rate was 92%. The average scope withdrawal time was 10 minutes. Adenoma detection rate was 19.6%. The average pain score was 2(1 to 4). There were no adverse effects.
Conclusions
We achieved acceptable results in all intra and post procedure quality indicators that were compared except adenoma detection rate (19.6% vs. 25%). We need to improve our adenoma detection rate in colonoscopy.

EP 33
PAST OSTEOPOROTIC FRACTURES IN PATIENTS WITH NECK OF THE FEMUR (NOF) FRACTURE: DID THEY HANDLE WELL?
S Sasikumar, M De Almeida.
Orthopaedic unit, Colombo South Teaching Hospital.

Introduction
Patients with previous osteoporotic fractures are prone to get fractures again including NOF fracture. Preventive measures have to be taken in those patients to prevent another fracture. The aim of the study was to identify under diagnosis and under treatment of osteoporosis during past osteoporotic fracture.

Material and Methods
Prospectively collected data of all the elderly patients with NOF fracture due to low energy force, admitted to orthopaedic unit during three months period (August - October 2014) were analyzed to identify measures taken during past osteoporotic fractures. Colles fracture, spinal fracture and previous NOF fractures due to low energy force were considered as past osteoporotic fracture.

Results
Among 109 patients, 27 patients had past osteoporotic fractures. 70% of past osteoporotic fractures were Colles’ fractures. Five patients had other side NOF fracture and three patients had spinal fracture. Two third of the patients (18) sought indigenous medical practitioners during previous fracture and among those except one, others had Colles’ fracture. 14% of patients with past osteoporotic fracture took some form of osteoporotic medications.

Conclusions
Indigenous treatment was common among these patients with osteoporotic fractures and consequence of that need to be analysed. Secondary prevention of osteoporosis should be instituted properly in the patients with previous fractures.

EP 34
MAJOR LOWER LIMB AMPUTATIONS: EXPERIENCE OF A TERTIARY CARE HOSPITAL IN SRI LANKA
DHB Ubuyawansa, WYM Abeysekera, MMAJ Kumara
Teaching hospital karapitiya, Galle, Sri Lanka

Introduction
History of Limb amputation runs as far as Neolithic period. Amputation is considered when the limb is dead, deadly or functionally useless. The incidences of different pathologies leading to limb amputation differ from region to region.

Materials and methods
We have retrospectively analyzed all the patients who have undergone major lower limb amputations in Teaching Hospital karapitiya for a period of one year from 01st of October 2013. Type of amputation, age sex, indications for amputation and mortalities were recorded.

Results
85 cases of major lower limb amputations were analyzed. That includes 43 above knee amputations, 40 below knee amputations, and 2 through knee amputations. Most of the patients were in their 7th decade (38.8%, n=33) and the 8th decade of life 21%, n=18). Male to female ratio was 1:1.7. Key condition associated with lower extremity amputation identified by this study is Diabetic foot ulcer(37.6% n=32) followed by Peripheral vascular disease(31.7% n=27). Other causes were trauma (6)acute limb ischemia (5) infections (5) chronic osteomyelitis (4) tumors (3) elephantiasis(1) pressure sore (1) chronic wound(1). Overall diabetes prevalence is 52.9 %(n45). In hospital mortality rate was 9.4%. Main Cause for deaths was septicemia.

Conclusions
In our study population major lower limb amputations
are more common in men compared to females. The incidence is highest in 7th and 8th decades. Diabetes mellitus directly and indirectly contributes to more than 50% of amputations.

EP 35
DESCRIPTIVE STUDY OF FRACTURE PATIENTS WITH OSTEOPOROSIS ADMITTED TO TEACHING HOSPITAL JAFFNA
S Vinojan, Gobyshangar T, A Raveekaran, V Lavanya

Introduction
Osteoporotic fractures are emerging as a major health problem in ageing population. Fractures result in increased morbidity, mortality and health expenditure.

Materials & Methods
Descriptive study was performed using interviewer administered questionnaire from fracture patients with osteoporosis at Teaching Hospital Jaffna between 1st of December to 31st of December 2014.

Results
85 fracture patients with osteoporosis were admitted during this period. Out of these 57 (67.1%) were female. Among these hip and colles fracture accounted for 27 (31.8%) patients each. These fractures result from road traffic accidents in 32 patients (37.6%) and from fall in 53 patients (62.4%). 51 patients (60%) were managed conservatively 26 (30.6%) with internal fixation, 6 (7.1%) with joint replacement and 2 (2.4%) managed with external fixation. Out of hip fractures 17(63%) patients were managed with internal fixation, joint replacement was done to 6(22.2%) patients and 4(14.8%) patients managed conservatively.

Discussion
As no DEXA scan facilities were available osteoporosis was diagnosed with Xray findings of decreased cortical thickness and loss of bony trabeculae. Number of colles fractures were equal to hip fractures, may be due to most of the colles fractures were managed in peripheral hospitals by general surgeons. Most of the hip fractures needed operative management.

Conclusion
Osteoporotic fractures result in increase morbidity and health expenditure. So there should be a screening program to identify individuals at high risk of disabling fractures and providing treatments to individuals most in need.

EP 36
CAUSES OF HEAD INJURY IN PATIENTS WHO WERE ADMITTED TO NEUROTRAUMA UNIT NHSL DURING THE MONTH OF MAY 2015: AN AUDIT
NL Weerasinghe, SP Athiththan, S Wadanamby

Introduction
Traumatic brain injury (TBI) is a serious public health problem and it contributes to a substantial number of deaths and permanent disability.

Materials and Methods
All patients admitted to Neurotrauma Unit NHSL with TBIs (moderate to severe head injury and/or pathological finding on CT) during the month of May 2015 were analyzed. All demographic data, mode of injury, GCS, management and hospital stay were recorded.

Results
Among the 150 admission (83.3% were males) where 65% were in the working age group (18-60 years). Road traffic accidents (RTA) accounted for 65 % (98) where as 21% (32) were due to fall and 7% (10) assaults. In the RTA group 66% (65) was motor bike accidents and 27% was three wheel accidents. None of them were neither passenger nor driver of cars. Among these subjects 39% of patients required surgical intervention and 49% required intensive care unit or high dependency unit care ( ICU/HDU). Average hospital stay was 7 days (2-21). In ward deaths was 11.3% (17) where majority were due to motor bikes 47% (8) and three wheels 29% (5).

Conclusion
Most of the head injuries were sustained among males of working age group where majority were due to RTA.
Motor Bike and three Wheel were the leading causes indicating more road safety measures are to be implemented towards motor bikes and three wheels. Increased requirement of ICU/HDU and long stay is a burden for health sector.

EP 37
PRESSURE ULCERS AMONG PATIENTS UNDERGOING SURGICAL MANAGEMENT OF NECK OF FEMUR FRACTURE, A STUDY ON THE PREVALENCE AND ASSOCIATED FACTORS

P Bandarage, PGDMC De Almeida, N Dassanayake
Colombo South Teaching Hospital, Sri Lanka

Introduction
Pressure ulcers, a known complication of prolonged immobilization are a major determinant of morbidity in femoral neck fracture. Although active surgical management targets early mobilization, comorbidities in the patient population can lead to its delay. The study aims to assess the prevalence of pressure ulcers among these patients while looking for correlations with comorbid conditions.

Material and methods
Research was conducted in Colombo South Teaching Hospital, on 80 patients who underwent surgery for fractured neck of femur. Patients were screened for pressure ulcers before discharge. Correlation with age, gender, comorbidities and the durations of pre and postoperative hospital stay were analyzed.

Results
Twenty four out of 80 patients (30%) developed pressure ulcers. Fourteen (17.5%) were of stage 1 while 5 each (6.25%) were of stages 2 and 3. Statistically significant associations were identified with low hemoglobin (p - 0.0091) and diabetes mellitus (p - 0.0039) while gender, length of hospital stay, type of fracture and systemic hypertension were not significantly associated.

Conclusions
A significant number of patients developed stage 1 pressure ulcers within the hospital stay itself. Although they heal once the patient gets mobilized early after surgery, there's a risk of progressing to severe forms if mobilization is delayed. Statistically significant association with diabetes and anaemia signifies the need of optimized management.

EP 38
EXTREMITY FRACTURE PATTERNS AND ASSOCIATED MECHANISMS AMONG PATIENTS ADMITTED TO NORTH COLOMBO TEACHING HOSPITAL (NCTH)

IHDS Prasad, IHDS Pradeep, AASM Amarasinghe, SAU Perera, IHDS Prabhath, UA Buddika, J Jayakumar, V Swarnakumar.
Orthopedic Surgical Unit, North Colombo Teaching Hospital, Ragama, Sri Lanka

Introduction
Extremity fractures represent a significant proportion of admissions to A&E departments and cause significant morbidity.

Materials and Methods
All patients with limb fractures admitted to NCTH from 2014/11/01 to 2015/03/31 were included in our study excluding severe head injuries. Patients were categorized according to age groups and the mechanism of injury.

Results
During the 5 month period, 501 patients were admitted of which 68% were males. Majority(59.3%) were belonging to working force (18-60 years), 23.4% were above 60 years, 9.7% were below 12 years and 7.5% were adolescents. Among children bellow 12 years the commonest mode of limb fractures was accidental falls(70.1%) and commonest fracture was forearm bones(43.8%) of which many were greenstick type; followed by humerus(33.3%), predominantly supracondylar fractures. Incidence of motorbike accidents(37.8%) and accidental falls(37.9%) were equal among adolescents of 12-18 years. Commonest fractures were seen in forearm(54.1%) followed by ankle and foot(21.6%) and tibiofibula(13.5%). Working
force of 18-60 years had demonstrated a greater incidence (39.2%) of motorbike accidents followed by accidental falls (27.3%) and trishaw accidents (7.8%). Majority (29.4%) had sustained forearm fractures while 23.5% had ankle/foot and 15.4% had tibiofibula fractures. One third of these were open fractures and quarter needed operative fixation.

Great majority (74.9%) of elderly population above 60 years had presented with accidental falls and 45.7% had femur fractures, predominantly neck of femur and 20.7% had forearm, mainly distal radial fractures.

Conclusions
Extremity fracture patterns differ according to age and mechanisms. This knowledge is useful for identification, treatment and prevention of such injuries.

EP 39
ANALYSIS OF PATIENTS WHO UNDERWENT EVACUATION OF TRAUMATIC EXTRADURAL HAEMATOMA IN A SINGLE CENTRE OVER 5 MONTHS DURATION
JGPI Wijerathna, D Attanayake, N Gunasekara
Teaching Hospital, Karapitiya

Introduction
Extradural haematoma, a collection of blood between the skull and the dura mater due to bleeding from extracerebral vessels is a common complication of head injury, often fatal if not treated in time. We analyzed 35 cases with EDH who consecutively underwent surgery, over 5 month period.

Material and Methods
This study includes 35 consecutive patients operated for EDH in neurosurgery unit, teaching hospital Karapitiya from 01/01/2015 to 31/05/2015. Each patient was evaluated in terms of age, sex, mode of injury, Symptoms and signs on admission, associated skull fractures, location of the haematoma, GCS at the time of surgery and interval between trauma and surgery. Data sources included patient’s hospital records, personal phone calls to the family members/patient.

Results
There were 35 patients. Male: Female, 31:04. Co-existing other brain injuries were present in 7 patients (20%). The median age was 42 years. The mechanisms of injury included falls (32%), motor cycle accidents (28%), assaults (14%), car accidents (11%), bicycle accidents (8%), and pedestrians (5%). 7 patients (20%) alcohol intoxication was documented. 5 patients (14%) had a lucid interval. Bradycardia and arterial hypertension were noticed in 6 patients (17%). Pupillary abnormalities were present in 16 (46%). 11 patients (31%) GCS scores were less than 8 at the time of surgery. Associated skull fractures detected in 9 patients (26%). Temporoparietal region was the most frequent site of EDHs (45%) followed by parietal and frontal regions respectively. The overall mortality in our series is 17% (6 patients). Among 24 patients who underwent surgery within 6 hours after injury, the mortality rate was 16.6% whereas who underwent surgery 6 hours after injury was 18% in our study. Of the 6 deaths, only 1 (17%) had a GCS >8 on surgery, whereas 83% had a GCS <8.

Conclusions
Predominantly road traffic accidents and falls contribute to EDH. Driving under the influence of alcohol is very much preventable. GCS on surgery is an important determinant of outcome following EDH. Thus we assume quick and safe transport of a patient to a neuro surgical unit is important with regard to the outcome.

EP 40
BILE DUCT INJURY PATTERN AND OUTCOME IN A TERTIARY CARE CENTRE
BNL Munasinghe, R Siriwardane, C Liyanage.
Department of Surgery, Faculty of Medicine, University of Kelaniya, Sri Lanka.

Introduction
Bile duct injury (BDI) following cholecystectomy has an incidence of 0.4% (laparoscopic cholecystectomy-LC) to 0.7% (open cholecystectomy-OC). Prompt identification and timely intervention is the key to
**Material and Methods**
Data were collected prospectively from patients referred with BDI from November 2013 to May 2015. All patients were followed up at regular intervals. Primary end points were to determine; (i) the type of BDI according to the Bismuth-Stuartway classification (E1-E5), (ii) associated arterial injury (iii) the timing of identification of BDI (iv) type of bile duct repair (v) hospital stay and (vi) outcome.

**Results**
Fifteen patients (Male 5: female 10; Median age 36 years [range 24 to 55 years]) were included. Mean body mass index was 23.6 (SD +/-2.43). All patients were following LC. 18% had been converted to OC. 60% of BDI were identified peri-operatively while 40% were identified late after been discharged. Type E2 and E4 were the commonest (70%) BDI types. 43% had right hepatic artery injury. All patients underwent hepatico-jejunostomy with a jejunal roux loop with uneventful recovery up to now. Median hospital stay was 6.5 days (range 6 to 10).

**Conclusions**
Although intra-operative detection of BDI (Early detection) is low (6%) a majority can be successfully managed with a roux loop of hepatico-jejunostomy at a tertiary referral centre with experience in bile duct repair.

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**EP 41**
**RELATIONSHIP BETWEEN THE INTERNAL JUGULAR VEIN AND CAROTID ARTERY ASSESSED UNDER DIRECT VISION AND ULTRASONICALLY IN SURGICAL PATIENTS AND IN CADAVERS**
BNL Munasinghe, SP Nilaweera, BDW Jayamanne, RF Fernando, B Gunethileke
Department of Surgery, Faculty of Medicine, University of Kelaniya, Sri Lanka

**Introduction**
Central venous access (CVA) is important to monitor central venous pressure, delivery of drugs and etc. Seldinger technique is adopted widely to cannulate the internal jugular vein (IJV), but variations in anatomical relationship to the common carotid artery (CCA) have lead to a catastrophe.

**Material and Methods**
A descriptive cross sectional study. From October 2012 to July 2014 in liaison with the Radiology and Forensic Departments of the North Colombo Teaching Hospital. Evaluation was either ultrasonically (from patients undergoing thyroid/neck ultrasound scans- USS and during surgery needing CVA) or under direct vision (during autopsy and thyroidectomies). Relationship of IJV to CCA was recorded at three levels (sternoclavicular junction-SCJ, cricoid cartilage-CC and upper border of thyroid cartilage lamina-TCL), on both right (R) and left (L) side.

**Results**
216 participants (60 male: 156 female; median age 48 years, range 16 to 75) consisting 192 patients (89%) and 24 cadavers (11%) were included. Patients were undergoing either; neck USS at the radiology department (144, 67%), CVA under USS guidance (22, 10%) or thyroidectomy (30, 14%). At all three levels IJV was lateral to the CCA in a majority (SCJ level: R 66.5%, L 29%; CC level: R 80%, L 85%; TCL level: R 89%, L 76%). IJV was anterior to the CCA at the SCJ level in a proportion (R 11.5%, L 22%) and antero-lateral in another proportion (R 20%, L 48%).

**Conclusions**
An anterior relation of IJV to the CCA is not rare and could be dangerous in seldinger technique.

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**EP 42**
**FACTORS AFFECTING SURGICAL OUTCOME IN MALLEO-LAR FRACTURES-A SINGLE UNIT EXPERIENCE**
LSA Hewage, HKC Lakmal, GAL Niroshana, DS Samaraweera, KKRP Kodithuwakku, PI Weerasinghe, RS Sooriyarachchi National hospital Sri Lanka

**Introduction**
Ankle fractures are becoming increasingly common injuries that necessitate careful approach for proper management. Incidence of ankle fractures vary from
country to country. Currently data for local epidemiology is nonexistent in literature to our knowledge. Studying about epidemiology, timing of treatment, mode of management and observed postoperative outcome and complications are useful in assessing the current management of ankle fractures.

**Material and Methods**

Descriptive cross sectional study of malleolar fracture patients admitted to National Hospital of Sri Lanka over 3 months were included in this study. Data was collected through bed head tickets, clinic records and interviewer based questionnaire. Date of mechanism of injury, modes and timings in surgical interventions, usage of antibiotics were analyzed via SPSS software package.

**Results**

Out of 27 patients 13 were bimalleolar and 4 were trimalleolar fractures. Majority had unstable fractures (n-19). Main causes were falls followed by road traffic accidents. Nineteen patients were managed surgically. Two patients needed revision surgery due to malalignment. There was no significant association between injury mechanism, type of fracture, admission and intervention delays and mode of treatment versus post-operative outcomes.

**Conclusion**

In contrast to international studies we have significantly less sport related malleolar fractures. We lack the statistical power to compare the surgical outcomes. We conclude that further follow up is needed to analyze the associations between injury factors and surgical outcome.