

Laparoscopic distal pancreatectomy: A Sri Lankan experience

K. B. Galketiya, MS FRCS¹, V. Pinto, MD FRCA², N. Rathnathunga, D.Path. MD Path, PhD, FRCP Edin³, W.M.M.P.B. Wanasinghe, MBBS⁴, S.P.M. Peiris, MBBS MS⁵

1 Consultant Surgeon, Teaching Hospital Peradeniya, Kandy, Sri Lanka.

2 Consultant Anaesthetist, Teaching Hospital Peradeniya, Kandy, Sri Lanka.

3 Consultant Pathologist, Teaching Hospital Peradeniya, Kandy, Sri Lanka.

4 Temporary Lecturer, Department of Anaesthesiology, Faculty of Medicine, University of Peradeniya. Kandy, Sri Lanka.

5 Senior Registrar in Surgery, Teaching Hospital Peradeniya, Sri Lanka.

ABSTRACT

Distal pancreatectomy is the surgical procedure indicated for pathology in the body or tail of the pancreas. Though laparoscopic distal-pancreatectomy for benign conditions was first described in the early 1990s, there are no reported cases in Sri Lanka. We report a female of twenty four years who was diagnosed to have a mass in the tail of the pancreas. She underwent a total laparoscopic distal pancreatectomy and splenectomy. Five ports were used. The procedure was completed in 150 minutes without a measurable blood loss. The specimen was retrieved via a 5 cm incision. She was discharged on the fourth post operative day. Histopathology revealed a solid pseudopapillary tumour.

Key words: Distal pancreatectomy; Laparoscopy; Solid-pseudopapillary tumour of pancreas.

Introduction

Distal pancreatectomy is the surgical procedure indicated for pathology in the body or tail of the pancreas [1]. Though laparoscopic distal-pancreatectomy for benign conditions was first described in the early 1990s [2], there are no reported cases in Sri Lanka.

Case Report

A 24 year old female presented with backache and loss of appetite for eight months. Physical examination was unremarkable and no co-morbidities were apparent. In abdominal ultrasound scan, a solid mass in the left adrenal area was noted and the computerised tomography revealed a well defined solid rounded lesion in the pancreatic tail region with contrast enhancement (Figure 1). There were no calcifications.

Following discussion at the radiology multidisciplinary meeting a decision was made to opt for surgical resection because of the potential risk of malignancy and she was symptomatic. Pre-operative ultra sound guided fine needle aspiration cytology was not done as it would not have altered the decision of resection. The patient was informed of the possibility of splenectomy and conversion to open surgery if deemed necessary. The patient underwent vaccination with pneumococcal, meningococcal and Hib vaccines three weeks prior to surgery.

Correspondence: K. B. Galketiya Senior Lecturer
Department of Surgery, Faculty of Medicine, Peradeniya,
Kandy.
E-mail: kbgalketiya@yahoo.com



Figure 1. computerised tomography (CT) scan of the abdomen demonstrating a lesion of the pancreatic tail

The surgery was performed under general anaesthesia with the patient in the right lateral position. Five ports were used including the camera port. The positions of ports are shown in figure 2.

No abnormality was evident in the peritoneal cavity. The stomach was lifted up using an instrument through the epigastric port. The gastrocolic omentum was divided. A pancreatic mass, involving the tail and compressing the splenic hilum was noted. The pancreas was retracted caudally; the splenic artery was dissected on its upper border and divided between clips. The splenocolic attachments were divided. The spleen was mobilised from its attachments to the diaphragm. The pancreas was lifted up and the splenic vein was identified and divided between clips. The pancreas was transected through the body using an ultrasonic dissector. The specimen was placed into a refashioned uribag and retrieved via a 5 cm mini incision

made by extension of a 10 mm working port site. (Figures 2 and 3).

There was no measurable blood loss and procedure took 150 minutes.



Figure 2. Postoperative abdomen: port sites and mini incision

Her post operative pain was mild and managed with oral analgesics and she was discharged on the fourth postoperative day. Histology

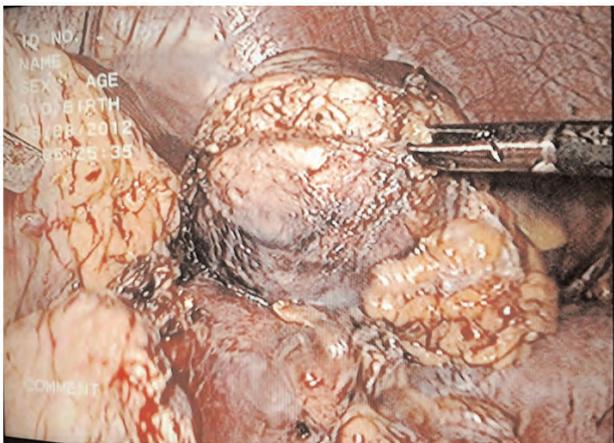


Figure 3. Retrieval of the specimen using the fashioned uribag

revealed a solid-pseudo papillary neoplasm of the pancreas.

Discussion

Solid-pseudopapillary tumour is an uncommon neoplasm that mainly occurs in women in the second to fourth decades of life. It is characterised by a low potential for

malignancy and favorable prognosis [3]. Distal pancreatectomy with en-bloc splenectomy has been considered the standard technique for management of benign and malignant distal pancreatic disorders. However, preservation of the spleen has recently been advocated [4]. Compared to open surgery, laparoscopic distal-pancreatectomy leads to shorter hospital stay and faster return to normal activity while the pancreatic leak rate and overall complication rate appear similar among both groups[5].

This procedure was completed within a time comparable to an open procedure and required only a small surgical opening. The blood loss and analgesic requirement was minimal and patient had early mobilisation and discharge from hospital.

Therefore, with surgical and anaesthetic expertise, when adequate facilities are available, laparoscopic- distal-pancreatectomy is feasible and realistic in Sri Lanka. Tumours with low malignant potential would be an ideal choice for a laparoscopic approach.

References

1. Hamilton NA, Hawkins WG. Distal Pancreatectomy. In: Chen H, ed. *Illustrative Handbook of General Surgery*. London. Springer. 2010: 311-20.
2. Palanivelu C, Shetty R, Jani K, Sendhikumar K, Rajan PS, et al. Laparoscopic distal pancreatectomy: results of a prospective nonrandomized study from a tertiary center. *Surgery Endoscopy* 2007; 21: 373-77.
Doi: <http://dx.doi.org/10.1007/s00464-006-9020-z>
PMid:17180289
3. Choi JY, Kim MJ, Kim JH, Kim SH, Lim JS, et al. Solid Pseudopapillary Tumor of the Pancreas: Typical and Atypical Manifestations. *American Journal of Roentgenol*. 2006; **187**(2): W178-86.
4. Fernández-Cruz L, Ordu-a D, Cesar-Borges G, López-Boado MA. Distal pancreatectomy: en-bloc splenectomy vs spleen-preserving pancreatectomy. *The Official Journal of the International HepatoPancreato Biliary Association*. 2005; **7**(2): 93-98
Doi: <http://dx.doi.org/10.1080/13651820510028972>
PMid:18333170 PMCID:2023931
5. Velanovich V. Case-Control Comparison of Laparoscopic Versus Open Distal Pancreatectomy. *Journal of Gastrointestinal Surgery*. 2006; **10**(1): 95-98
Doi: <http://dx.doi.org/10.1016/j.gassur.2005.08.009>
PMid:16368497