

The role of flexible sigmoidoscopy in the evaluation of patients presenting with a lump at anus

U. Jayarajah¹, M.V.C. de Silva², D.N. Samarasekera¹

¹ Department of Surgery, Faculty of Medicine, University of Colombo, Sri Lanka

² Department of Pathology, Faculty of Medicine, University of Colombo, Sri Lanka

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Abstract

Objective

In certain units, flexible sigmoidoscopy is routinely done in patients presenting with a lump at anus, even if an obvious cause is seen on proctoscopy. This is to look for primary causes and to detect other additional lesions. However, routine flexible sigmoidoscopy has led to many negative sigmoidoscopies.

Materials and methods

A retrospective analysis of 556 consecutive patients presenting with lump at anus with or without painless bleeding per rectum over a period of 9 years was carried out. Those with additional symptoms such as alteration of bowel habits and abdominal pain were not included. All the patients underwent a digital rectal examination, proctoscopy and flexible sigmoidoscopy.

Results

Median age at presentation was 49 years (range 16-89) (Male: female = 1.3:1). Of those, 175 (31.47%) were aged 40 years or less. The majority (N = 361, 64.9%) had haemorrhoids only. In the majority (90.83%), apart from lesions identified by clinical examination and proctoscopy no additional lesions could be identified. Of those aged 40 years or less, 1 patient (0.6%) had a benign polyp while in those aged more than 40 years, 5.2% had benign polyps, and 1 (0.3%) patient had carcinoma. Only 2 patients (1.2%) aged less than 40 had additional lesions, which were benign.

Conclusion

Our study shows that flexible sigmoidoscopy was of some value mainly in those over the age of 40 years. Those who are

aged 40 years or less and who are diagnosed to have a lesion on clinical examination and proctoscopy may be treated for the same without further endoscopy.

Introduction

A lump at anus is a common presentation in the general practice [1] and are frequently referred to a surgical unit for further evaluation. Common causes for this presentation are haemorrhoids, chronic fissure, anal tags, rectal prolapse, condylomata and anal cancer [2].

The presence of a lump at anus narrows down the differential diagnosis because the pathology is most likely to be very distal. Also in the majority of the patients presenting with a lump at anus, a diagnosis can be made by clinical examination and proctoscopy.

Flexible sigmoidoscopy is routinely done in some units in both young (i.e. 40 years or less) and older patients (i.e. more than 40 years) presenting with a lump at anus, even if an obvious cause is seen on proctoscopy. This is to exclude primary causes and to detect other additional lesions. However, routine flexible sigmoidoscopy to all patients have led to many normal sigmoidoscopies.

It is also important to note that when there are primary causes, it is unusual to present without additional symptoms such as alteration of bowel habits and tenesmus. However, it is also important not to miss them as the primary cause may be sinister. Whether routine flexible sigmoidoscopy should be done in all patients presenting with a lump at anus without other alarming symptoms is debatable and especially the cost effectiveness in a resource limited setting is controversial.

Studies have been done to assess the yield of flexible sigmoidoscopy in patients presenting with per-rectal bleeding and other colorectal symptoms [3, 4]. However, there are no published data particularly on the yield of flexible sigmoidoscopy in those presenting with a lump at anus, with or without fresh per rectal bleeding.

Therefore, this study aims to identify the yield of flexible sigmoidoscopy in the evaluation of those presenting with a lump at anus without additional alarming symptoms and also

Correspondence: D.N Samarasekera

E-mail: samarasekera58@yahoo.co.uk

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 <http://orcid.org/0000-0003-2229-7549>

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to compare the effectiveness in young and older patients.

Materials and methods

A retrospective analysis of patients presenting with a lump at anus with or without painless fresh per rectal bleeding who underwent flexible sigmoidoscopy in the Professorial Surgical Unit, Faculty of Medicine, University of Colombo from January 2007 to April 2015 was done. Reports of all patients who were older than 16 years were analysed. Those who had other bowel symptoms such as alteration of bowel habit, abdominal pain, passage of mucus, tenesmus, loss of weight and loss of appetite were excluded. Those who had a past history of colorectal malignancies, inflammatory bowel disease or a family history of familial adenomatous polyposis or hereditary non-polyposis colorectal cancer were also excluded from this analysis. All those who had a palpable tumour at digital rectal examination were also excluded.

A total of 556 patients were selected for analysis. All those patients had a “lump at anus” as the primary complaint. All patients underwent a digital rectal examination, proctoscopy and flexible sigmoidoscopy which were performed by colorectal or general surgeons or by surgical trainees under supervision at the endoscopy unit. A single phosphate enema was administered 45 – 60 minutes before flexible sigmoidoscopy in all patients. Patients were positioned in the left lateral position. The procedure was done with a standard 60-cm fibre optic flexible sigmoidoscope, Details related to the procedure such as type of sedation (if used), the part of the bowel visualised, abnormalities seen, adequacy of preparation and patient details were recorded in a computer database.

Statistical analysis was done using SPSS 20.0 statistical software (SPSS Inc., USA). Univariate analysis was done and results of categorical variables were expressed as frequencies and proportions.

Results

Flexible sigmoidoscopy was performed in 314 (56.5%) males and 242 (43.5%) females. Of those, 175(31.47%) were aged 40 years or less. The median age of the participants was 49 years (range 16-89). Complete sigmoidoscopy was considered as intubation up to the splenic flexure. This was achieved in 548 patients. The main reason for failure was poor bowel preparation. There were no complications encountered during these procedures.

The majority of the patients had haemorrhoids only (n = 361, 64.9%). Skin tags and chronic anal fissures were the only abnormalities detected in 13 (2.3%) and 9 (1.6%) patients respectively. Normal findings were seen on clinical examination, proctoscopy and flexible sigmoidoscopy in 87 patients (15.6%). Polyps, inflammatory lesions, diverticula, were the findings in 14 (2.5%), 7 (1.3%) and 4 (0.07%)

patients respectively. On endoscopic examination, the presence of ulcers, oedema, erythema, granular appearance of mucosa were considered as inflammatory lesions. Other rare findings included, vascular malformations, perianal haematoma, and fistula-in-ano in 9 patients (1.7%).

In 51 (9.17%) patients additional lesions other than those detected by clinical examination and proctoscopy were identified.

Other pathologies in addition to the lump were found in 17 patients only (3.05%). All those patients had haemorrhoids in addition to polyps (n=8, 1.5%), ulcer or inflammatory lesions (n=3, 0.5%) and diverticular (n=5, 0.9%) respectively. One patient had a suspicious mucosal bulging with intact mucosa.

Almost all (n = 15) of those with additional lesions were aged more than 40 years. One patient less than 40 years had an additional lesion which was an adenomatous polyp and another patient had an ulcer as an additional finding, in the rectosigmoid junction which was histologically unremarkable.

Total number of patients detected to have polyps was 22 (4.0%, isolated findings 14 and 8 patients had polyps in addition to haemorrhoids). The majority of the polyps were adenomatous polyps (n = 15, 68.1%). Of those, 12 had low grade dysplasia and 2 had high grade dysplasia. One polyp was histologically malignant, which was a moderately differentiated adenocarcinoma, infiltrating the muscularis mucosa [Table 1].

	Number	Percentage (%)
Tubular adenoma with low grade dysplasia	12	54.5%
Tubular adenoma with high grade dysplasia	2	9.1%
Serrated adenoma	1	4.5%
Adenocarcinoma –moderately differentiated	1	4.5%
Unremarkable	2	9.1%
Fibroepithelial polyp	2	9.1%
Hyperplastic polyp	2	9.1%

Table 1. Histological findings of polyps found in flexible sigmoidoscopy in the total study participants

All (n=9) inflammatory lesion (ulcers, erythematous areas) were histologically unremarkable.

All isolated benign polyps were found only in those aged more than 40 years. Important findings including lesions in addition to the lump were noted in 2.9% of those aged 40 years or less and 12.8% of those ages more than 40 years. The

	Age 40 years or less		Age more than 40 years	
	N	%	N	%
Haemorrhoids	119	68.0%	242	63.5%
Other benign lesions	22	12.6%	26	6.8%
No abnormalities detected	29	16.6%	64	16.8%
Benign Polyp	0	0.0%	13	3.4%
Inflammatory lesions	1	0.6%	6	1.6%
Diverticula	2	1.1%	15	3.9%
Adenocarcinoma	0	0.0%	1	0.3%
Haemorrhoids + benign polyp	1	0.6%	7	1.8%
Haemorrhoids + inflammatory lesions	1	0.6%	2	0.5%
Haemorrhoids + diverticula	0	0.0%	5	1.3%

Table 2. Comparison between age and the types of lesions found during flexible sigmoidoscopy

comparison with type of lesions and age is given in Table 2.

Discussion

Lump at anus is a common clinical problem. Among surgical units, there is currently no consensus whether a flexible sigmoidoscopy is necessary if an obvious aetiology is identified with clinical examination and proctoscopy. Some units perform routine flexible sigmoidoscopy in all age groups even if a cause has been detected.

In this study, the majority had haemorrhoids as the only cause for the lump at anus (n = 361, 64.9%). For diagnosis, the majority required clinical examination and proctoscopy. Only 51 (9.17%) patients were found to have additional lesions other than those detected by clinical examination and proctoscopy. Additional findings were seen only in 9.17% of patients out of which 3.05% had additional lesions. Out of those, the majority seemed to be an incidental finding rather than a cause for the lump at anus. Total yield of flexible sigmoidoscopy for polyps was 3.95% and malignancy was 0.17%.

Similar studies have been done to evaluate the yield of flexible sigmoidoscopy in those who presented with per rectal bleeding [3, 5, 6]. They showed a considerably higher yield of both benign and malignant lesions. A study done in 337 patients aged more than 40 years who presented with frank rectal bleeding showed that 9.1% had cancers and 10.3% had polyps [6].

Similarly, an analysis of sigmoidoscopy findings in those who presented due to per rectal bleeding showed that 7.7% had adenomatous polyps and 1.2% of those aged more than 40 years had a malignancy. However, our study did not find any malignant lesions in those who were aged less than 40 years [5]. In our study, thus the diagnostic yield of polyps was 4.0% (n = 22) and one patient (0.18%) had a histologically malignant polyp.

Therefore, the yield of polyps and malignancies was considerably less in our study where the presentation was a lump at anus with or without fresh per rectal bleeding. This may be due to the differences in the presenting symptoms in our patients compared to the above studies.

It is important to note that all isolated polyps detected were seen in those aged more than 40 years. Furthermore, only 1.2% (n = 2) of those aged 40 years or less had additional findings which were benign. No coexisting malignant lesions were identified in this analysis. Only (0.3%) isolated malignant lesion found was in a patient aged 55.

Commissioning guide for rectal bleeding, 2013 [7] states that basic clinical history, examination and proctoscopy is sufficient for young patients without any alarming symptoms. Older patients and those with alarming symptoms such as alteration of bowel habits, abdominal mass, anaemic symptoms, loss of appetite and loss of weight and strong family history of malignancy will require further endoscopy for evaluation. Similarly in our study, most patients required clinical assessment with proctoscopy for diagnosis. However, evidence based guidelines are not available for our population for patients presenting with lump at anus or rectal bleeding. Therefore, further studies are required. In addition, the incidence of colorectal cancer is increasing in the younger population over the past few decades [8]. It is important not to miss cancers in young patients. Therefore, a good clinical assessment with history, physical examination and proctoscopy is mandatory in all patients.

Routine flexible sigmoidoscopies in all patients imposes higher cost, especially in a low resource setting like in Sri Lanka and may also cause unnecessary discomfort to patients. Since the yield of additional lesions were considerably low in those who were 40 years or less, it may be possible to treat those who are less than 40 years and who are diagnosed to have a lesion on clinical examination and proctoscopy, for the same without further endoscopy.

Conclusion

Routine flexible sigmoidoscopy for evaluation of a lump at anus without alarming symptoms may not be necessary for all patients as it may impose higher cost and unnecessary patient discomfort. In this study, flexible sigmoidoscopy was a valuable initial investigation mainly for patients older than 40

years presenting with a lump at anus. It may be possible to treat those who are less than 40 years and who are diagnosed to have a lesion on clinical examination and proctoscopy without subjecting them to sigmoidoscopy.

All authors disclose no conflict of interest. The study was conducted in accordance with the ethical standards of the relevant institutional or national ethics committee and the Helsinki Declaration of 1975, as revised in 2000.

References

1. Daniel WJ. Anorectal pain, bleeding and lumps. *Australian family physician*. 2010;39(6):376-81.
2. Wolff BG, American Society of Colon and Rectal Surgeons., R2 Library (Online service). The ASCRS textbook of colon and rectal surgery. New York: Springer,; 2007.
Available from:
http://catalog.himmelfarb.gwu.edu/iii/encore/record/C__Rb1578709
http://proxygw.wrlc.org/login?url=http://www.R2Library.com/marc_frame.aspx?ResourceID=545.
<https://doi.org/10.1007/978-0-387-36374-5>
3. Mathew J, Shankar P, Aldean IM. Audit on flexible sigmoidoscopy for rectal bleeding in a district general hospital: are we over-loading the resources? *Postgraduate medical journal*. 2004;80(939):38-40. <https://doi.org/10.1136/pmj.2003.008284>
4. Papagrigroriadis S, Arunkumar I, Koreli A, Corbett WA. Evaluation of flexible sigmoidoscopy as an investigation for "left sided" colorectal symptoms. *Postgraduate medical journal*. 2004;80(940):104-6. <https://doi.org/10.1136/pmj.2003.008540>
5. Choi HK, Law WL, Chu KW. The value of flexible sigmoidoscopy for patients with bright red rectal bleeding. *Hong Kong medical journal = Xianggang yi xue za zhi / Hong Kong Academy of Medicine*. 2003;9(3):171-4.
6. Cheung PS, Wong SK, Boey J, Lai CK. Frank rectal bleeding: a prospective study of causes in patients over the age of 40. *Postgraduate medical journal*. 1988;64(751):364-8. <https://doi.org/10.1136/pgmj.64.751.364>
7. The Royal College of Surgeons of England. Commissioning guide for rectal bleeding, 2013. Available at: <https://www.rcseng.ac.uk/library-and-publications/college-publications/docs/rectal-bleeding-guide/>
8. O'Connell JB, Maggard MA, Liu JH, Etzioni DA. Rates of colon and rectal cancers are increasing in young adults. *The American surgeon*. 2003;69(10):866