Endoscopic Detection and Removal of Recto-sigmoid Myomatous (Leiomyoma) Tumour

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Additional Files:
Histopathological cut section of Leiomyoma
Histopathological cut section
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Introduction

Colonic Myomatous tumours; (Leiomyosarcoma and Leiomyoma) are a rare conditions. Only 3% of these smooth muscle tumours arising from colon are gastrointestinal leiomyomas and constitute about 0.1% of rectal tumours (1, 2). Most of these tumours are incidentally diagnosed on routine large bowel endoscopic examination (1, 5). Rarity of this tumour delays early diagnosis but once identified it should be resected to avoid complications like bleeding and mechanical obstruction. For most leiomyomas, surgical excision is treatment of choice (1). We describe a patient who underwent endoscopic detection and resection of Recto-sigmoid leiomyoma.

Case Report(s)

A 55 year male presented to the outpatient clinic with three month history of loose stools (liquid consistency) and opening his bowels about 4 to 5 times a day. The patient had a long-standing one year history of intermittent fresh red bleeding per rectum in small amounts. He also gave history of Intermittent left sided crampy lower abdominal pain for several weeks, with however no loss of appetite or weight loss. He had no significant past medical problems and no family history of bowel neoplasms. The abdominal examination was essentially normal except for mild tenderness in left iliac fossa. However per rectal examination revealed a painful external haemorrhoid at the 7 o’clock. Bedside Proctoscopy proved too uncomfortable due to tender haemorrhoid. His haemoglobin was 15.9, haematocrit 0.451 and mean corpuscular volume 93.6. Colonoscopic examination performed after 2 days revealed a 1 cm sessile polyp located at the recto sigmoid junction, 15 cm from anal verge (Fig 1) and diverticular change in the sigmoid colon. There were no signs of active bleeding noted over the polyp or diverticula. A successful polypectomy using snare electrocautery was done and biopsy of distal sigmoid was performed (Fig 2). Patient had a good and uneventful postoperative recovery.

Subsequent histopathological examination confirmed the diagnosis and showed a sub mucosal leiomyoma which comprised of smooth muscle bundles intersecting each other with no increased mitotic activity or atypia. The lesion was positive for ASMA (Alpha-smooth muscle actin) and negative for CD34.

Discussion

Leiomyomas are smooth muscle tumours and can be found anywhere along the gastro-intestinal tract (3). They have been documented to occur in every part of the colon mainly in the sigmoid colon and transverse colon. Incidence of rectal leiomyomas is fairly uncommon. Generally leiomyomas are reported to be sessile intra-luminal or intra-mural types but occasionally it may present as pedunculated extra-luminal mass in colon (1). These smooth muscle tumours can be found in all age groups but there is a pattern of steady increase in frequency and malignancy till the sixth decade (3, 5). Leiomyomas can affect both males and females with slight female predominance trend (3). On the other hand, Meittinen et al observed a substantial male predominance (5). Various clinical presentations of leiomyomas are asymptomatic, abdominal pain, rectal bleeding or perforation, but the commonest is rectal bleeding. A lot of these tumours are incidentally found on routine endoscopic examination of bowel, however due to early clinical symptoms, intra luminal leiomyomas can be detected soon. In endoscopic view, these tumours look as pedunculated or sessile; intramural or intra-luminal polyps mimicking adenoma. As biological activity of leiomyomas varies from benign to intermediate to malignant, histological behaviour may not be manifested in its biological behaviour. It has been noted that benign looking tumours may be histologically aggressive and can metastasize. Hence, the best predictor of behaviour is achieved by tumour site and size, its histological appearance and mitotic activity.

Account should be taken that differentiation is done between leiomyomas and GISTs (gastro-intestinal tumours) immuno- histochemically as leiomyomas are positive for actin and desmin and negative for CD34
and CD117 whereas GISTs stain in opposite pattern (2, 5).
The treatment of choice for majority of leiomyomas is surgical excision. Successful endoscopic polypectomy of colonic leiomyoma reduces the cost of treatment and eliminates unnecessary surgery. Colonoscopic snaring is a safe and approachable method to deal with such a problem but surgical resection should be considered for large leiomyomas to prevent bowel perforation (4).

Conclusion

In summary, we present a rare case of recto-sigmoid leiomyoma successfully removed endoscopically with no post procedure complications. Small Leiomyomas like the present case are recommended to be removed as they have a small risk of malignant potential when left alone and also to prevent further symptoms of bleeding. Leiomyomas should be considered as a differential diagnosis on routine colonoscopic examinations (3). If the tumour shows any signs of mitotic change and/or atypia then follow up is mandatory.

Abbreviations(s)

Key words: colonoscopy; leiomyoma; GIST

References

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Illustrations

Illustration 1

Leiomyoma before excision
Illustration 2

Leiomyoma after excision
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