Middle-aged patient with haematochezia and anaemia presenting with rectal GIST

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Accepted 31 March 2021

DESCRIPTION

A 44-year-old female patient presented to the surgery outpatient department with 4 months history of bleeding per rectum and 1-month history of constipation. The patient also had history of loss of appetite and weight loss of 2 kg over last 1 month. The patient did not have any significant medical, surgical or family history. On examination, the patient had pallor and appeared emaciated. Her vital was stable, per abdomen was soft and unremarkable. On per rectal examination, a friable ulcerative proliferative growth was noted on anterior wall of rectum approximately 4 cm from anal verge. The rest of the systemic examinations were within normal limits. The patient had haemoglobin of 80 g/L, rest of the parameters were normal. On sigmoidoscopy a ulceroproliferative growth at 3 cm from anal verge was noted.

Non-contrast CT images revealed a heterogeneous mass with both endopytic and exophytic components. There is luminal stenosis of rectum due to endopytic component and inferiorly

Figure 1 (a,b) Plain axial CT scan images demonstrating iso to hypodense lesion arising from the anterior wall of rectum with exophytic (black arrow) and endophytic component (white arrow). (c) Postcontrast axial images demonstrating heterogeneously enhancing mass lesion with hypo-enhancing areas (black arrow) within, endophytic component (white arrow) causing luminal narrowing and anterior extent of the lesion upto obturator internus muscle (red arrow). (d) Postcontrast axial images demonstrating heterogeneously enhancing mass lesion with exophytic (black arrow) and endophytic component (white arrow).

Figure 2 (a) Postcontrast sagittal images demonstrating involvement of cervix (white arrow). (b) Postcontrast sagittal images demonstrating enhancing bowel wall-based lesion with exophytic (black arrow) and endophytic component (white arrow). (c,d) Postcontrast coronal images demonstrating enhancing bowel wall based lesion (black arrow) 3 cm from anal verge.

the lesion extends into anal canal (figure 1A,B). On postcontrast images, solid parts of the lesion were enhancing while necrotic parts were hypo enhancing. Lesion extends anteriorly upto obturator internus muscle with maintained fat planes (figure 1C,D). The exophytic component had lost fat planes with cervix, (figure 2A–D). No features of any other similar lesion, lymphadenopathy or metastasis to other abdominal viscera were noted. On follow-up, the patient was advised for surgical resection but the patient refused surgery.

GIST is the most common mesenchymal tumour, usually occurs in stomach and small bowel.¹ Rectal GISTs are uncommon,² their presentation depends of tumour size. Small lesions can have a indolent course, larger lesions can present with rectal bleeding and constipation.³ They can present as predominantly exophytic lesion or exophytic lesion with endophytic component.⁴ CT scan can reliably detect, stage and assess treatment response of tumour.^{5,6} On CT, they appear as a large heterogeneous enhancing mass with cystic degeneration, necrosis and haemorrhage. They can also present with ulceration and fistulisation of the gastrointestinal tract.^{7,8} Small Gastrointestinal Stromal Tumor (GIST) can be endoluminal and polypoidal with homogeneous appearance on CT.⁶ Close to 50% of

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To cite: Andrew D, Shyam K, Johny J, et al. *BMJ Case Rep* 2021;**14**:e240872. doi:10.1136/bcr-2020-240872

cases present with metastasis,⁹ commonly to liver and peritoneum via haematogenous and peritoneal seeding, respectively.⁶

Postimatinib response is characterised by transition from heterogeneously hyperattenuating lesion to homogeneously hypoattenuating lesion due to myxoid degeneration; decrease in size and disappearance of enhancing nodule indicates response.⁶ Appearance of new enhancing tumour nodules within treated hypoattenuating lesion is suggestive of recurrence. An FDG-PET is considered whenever CT findings are inconsistent or inconclusive. MRI is an alternative if CT is contraindicated, they can detect small liver lesions.¹⁰

Complete surgical resection with tumour-free margin is the treatment of choice and the type of surgery is based on size and location of tumour.^{11 12} Imatinib mesylate (IM) is the treatment of choice for metastatic and advanced cases of GIST.¹³ Since surgery can have up to 25% recurrence even in case of a low risk tumour, combination of surgery with perioperative IM treatment can improve surgical outcome and survival of the patient.¹⁴

Learning points

- ▶ GIST is common mesenchymal tumour, but rectal GISTs are uncommon.
- ▶ GIST can have endophytic and exophytic component, the symptoms depend on the size of the tumour.
- ▶ Contrast-enhanced CT is very good for evaluation of GIST.

Contributors All the four authors have contributed equally for the article. DA had drafted the article and chose the appropriate images, KS and JJ reviewed the article and made necessary changes. RJ had collected the necessary clinical details and provided inputs for drafting the article.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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