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Research Paper

Leiomyoma of Stomach: Rare Cause of Upper Gastrointestinal Bleeds in a Child

Medical Science

KEYWORDS :

Vivek srivastava — M.B.B.S, M.S, Assistant Professor Department of General Surgery, Institute of Medical Sciences, Banaras Hindu University, Varanasi, U.P.

Vaibhav Pandey — M.B.B.S, M.S, M.Ch., Assistant Professor, Department of Paediatric Surgery, Institute of Medical Sciences, Banaras Hindu University, Varanasi, U.P.

ABSTRACT

Leimyomas are benign tumors arising from smooth muscle layer of intestine and have a typical indolent course. They often attain huge size before presentation commonly in the form of gastrointestinal bleed. They commonly present in elderly patients. We present here a rare presentation of Leiomyoma in a young female patient with a typical presentation and its successful management.

Introduction:

Leiomyomas of gut are rare benign mesenchymal tumors. Their presentation is very variable and depends on their site, size and complications [1]. Gastro intestinal stromal tumours are most common mesenchymal neoplasm of gastrointestinal tract with similar presentation to leiomyomas, but it is imperative to differentiate the two as both are having different management protocols [2]. We report a case of a gastric leiomyoma in a 12-year-old female who presented with anemia and gastrointestinal bleeding. Endoscopic findings, clinical course, differential diagnosis and treatment options are reviewed.

Case Report:

A 12 year old female presented in emergency department in shock with total duration of illness of five days. There was history of acute onset weakness for which she took treatment from a local practitioner. There was no history of bleeding from anywhere. Child was conscious with stable vitals. Her general physical examination revealed severe pallor. Systemic examination was unremarkable except per-rectal examination which showed finger stained with foul smelling black sticky stool suggestive of malena. Hemogram showed haemoglobin to be 2gm/dl. Renal function and liver function test were normal. She was resuscitated with intravenous fluids and 4 units of blood transfusion were performed over 48 hours. Upper GI endoscopy was performed which showed an intraluminal mass extending from cardiac end to the antrum of stomach [Fig 1]. Contrast enhanced (both oral and intravenous) computer tomography showed intra luminal mass in stomach arising from mural layer without any extension outside [Fig 2]. There were no lymph nodes or ascites. X-ray chest was normal. Exploratory laparotomy with lesser curvature sleeve gastrectomy was performed with 1 cm margin all around. Post-operative course was uneventful. Histopathology showed Spindle cell tumour with Mitotic figure <1/100 HPF and negative margins. Perigastric and cardiac lymph nodes were negative. Immunohistochemistry was negative for CD-117 and positive for desmin and actin.

Patient is asymptomatic and doing well at 2 year follow up with normal and normal barium meal at 6 months [Fig. 3] and normal at upper GI endoscopy 1 year.

Discussion

Benign tumors that arise from the smooth muscle cells are termed as leiomyomas [1]. The usual age of presentation is sixth to seventh decade of life and is commoner in males than females. Leiomyomasare usually well demarcated firm nodules (almost always less than 4 cm in diameter) arising within the submucosa or muscularis propria and are well encapsulated, round to oval gray nodules and almost invariably intact overlying mucosa. When submucosal, they protrude into the lumen and sometimes cause ulceration of the overlying mucosa. In our case the tumour was well encapsulated with overlying mucosal ulceration. Bleeding from stromal tumours with mucosal ulceration is one of common mode of presentation. Other modes of presentation are intestinal obstruction, intussusception, volvulus or asymptomatic mass [2]. Leiomyoma can remain asymptomatic or long periods. The differential diagnosis includes GIST, inflammatory fibroid polyps, neurofibromatosis and sarcoma.

Leiomyoma has fascicles of uniform spindle cells with moderate to abundant eosinophilic cytoplasm havingelongate nuclei frequently blunt-ended. Further in leiomyoma there is a focal cytologic atypia with mitotic rate ≤5/50 HPF.Most are intramural(involving muscularis propria). Leiomyomas are usually positive for desmin and vimentinand are CD117 negative which differentiates it from CD117 expressing GIST [2-3]. Surgical resection with negative margin is curative whereas GIST may require adjuvant Imatinib depending upon the pathological findings.

Abdominal ultrasound is often the initial imaging test employed in the investigation of a patient with abdominal pain or mass. CT provides the basis for diagnosis and staging in most patients. Upper GI endoscopy stands as main modality in cases with involvement of stomach [4].

The curative intent in the treatment is operative excision with a clear margin. The prognosis rests on margins of resection and differentiation from GIST with help of immunohistochemistry [4-5].

Conclusion

Leiomyoma are rare curable tumor of gut with very similar presentation and pathological findings very similar to its common stromal counterpart, GIST. Immunohistochemistry forms the backbone of management as just complete excision is curative in leiomyoma whereas GISTs require careful follow up and adjuvant treatment.

Legends

- CT scan showing intraluminal gastric mass.
- Upper GI endoscopy showing well encapsulated tumour on lesser curvature.
- Normal barium meal at 6 month follow up showing adequate stomach capacity.

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Fig 1

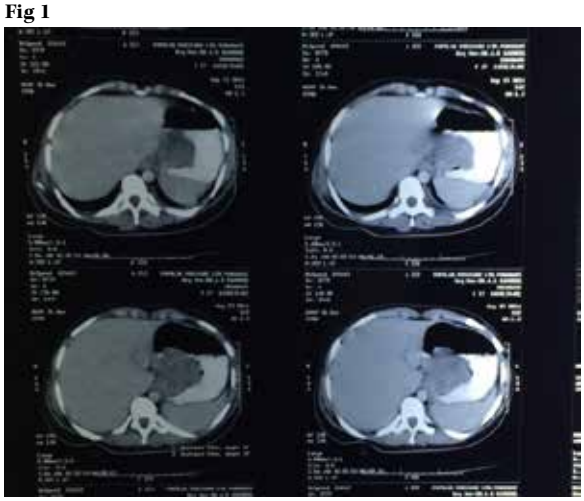


Fig 2

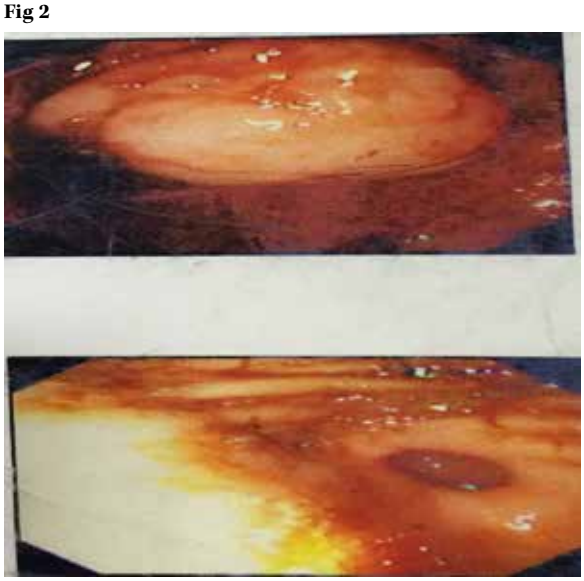
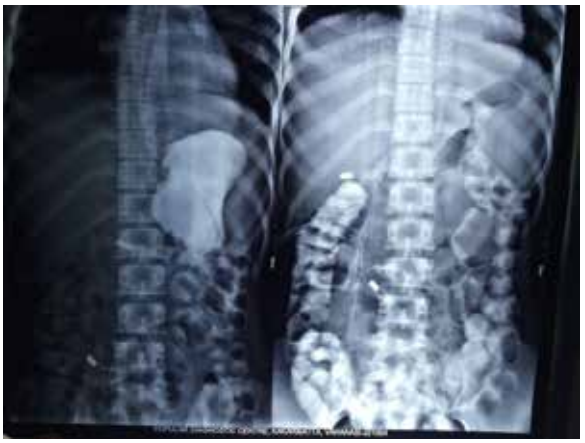


Fig 3



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