



A case report of gastric lipoma- An unusual site and cause of gastric lesion

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Abstract

Introduction: Gastric lipoma is an uncommon benign tumour of the stomach originating from adipose tissue. The most common location is the pyloric antrum and about 90–95% of cases arise in the submucosal layer. It is usually asymptomatic and is often detected incidentally during endoscopy or imaging examinations.

Case description: We present a case of 53-year-old man presented with five days of melena and severe anaemia (Hb 6.5 g/dL). Contrast- Enhanced Computerized Tomography (CECT) revealed a well-defined fat-attenuation submucosal/subserosal gastric lesion in the distal body/antrum, suggestive of a lipomatous tumour, with possible mucosal ulceration. Upper gastrointestinal endoscopy showed a large submucosal polypoidal lesion with normal overlying mucosa and central ulceration, initially suspected to be a gastrointestinal stromal tumour (GIST). Partial gastrectomy specimen revealed a large submucosal polypoidal lesion with a greasy yellow cut surface, and on histopathology examination final diagnosis was gastric submucosal lipoma with surface ulceration

Discussion: Gastric lipomas are benign tumors that may present with abdominal pain, gastrointestinal bleeding, or obstruction. Diagnosis is based on imaging and endoscopic evaluation, although biopsy is often inconclusive because of their submucosal location. Surgical removal is the preferred treatment for symptomatic or large lipomas. Definitive diagnosis can be established through histopathological examination of the surgically resected specimen.

Conclusion: Although gastric lipomas are rare, they can be difficult to diagnose, particularly when they present with bleeding. Asymptomatic lesions may be managed conservatively with observation and surgical resection is the mainstay of treatment for symptomatic or large lipomas.

Keywords: Lipoma, benign, mesenchymal tumour

Introduction

Gastric lipomas are rare mesenchymal tumours that account for fewer than 1% of all gastric tumors [1]. They usually present in the fifth or sixth decade of life, with equal prevalence among males and females, and approximately 75% are located in the antral region within the submucosal or serosal layers. Diagnosis may be difficult because of their submucosal origin and nonspecific symptoms [2]. In general, most gastrointestinal lipomas are asymptomatic, particularly smaller lesions, whereas larger ones may lead to upper gastrointestinal dysfunction and bleeding [3]. Here, we present an unusual case of gastric lipoma.

Case Report

A 53-year-old man was admitted with five days history of passing black tarry stool. Haemoglobin was 6.5gm/dl at the time of admission. Contrast- Enhanced Computerized Tomography (CECT) of abdomen showed well defined mural fat attenuation lesion in the posterior wall of distal body / antrum of the stomach measuring 5.2x6.5cms with anterior displacement of gastric lumen. Possible submucosal vs subserosal location – suggestive of fat containing mesenchymal neoplasm (Likely benign lipoma) with

suspicious mucosal enhancement indistinctness in the posterolateral aspect of the lesion- ?ulcer and suggested endoscopic correlation. On upper gastrointestinal endoscopy (Figure 1) body of the stomach showed large submucosal polypoidal lesion with normal overlying mucosa with central? Ulceration with the impression of? GIST (Gastrointestinal stromal tumour) was given.

Partial gastrectomy comprising body antrum and pyloric part of the stomach was done and sent for histopathological examination. Gross examination (Figure 2&3) of partial gastrectomy specimen showed a submucosal polypoidal lesion involving body and antrum of stomach measuring 9x7.5x4.5cms and foci shows mucosal ulceration measuring 2.5x1.2cms. Cut surface was greasy to cut and showed homogenous yellowish area. Microscopically sections studied from the polypoidal lesion showed a well circumscribed lesion comprising of sheets of mature adipocytes separated by thin fibrous septae and few congested blood vessels seen (Figure 4&5). A foci also showed mucosal ulceration with scattered neutrophils (Figure 6). Final impression of Gastric submucosal lipoma with surface ulceration was given.



Fig 1: Upper GI Endoscopy: Polypoidal lesion in the body of stomach(blue arrow)

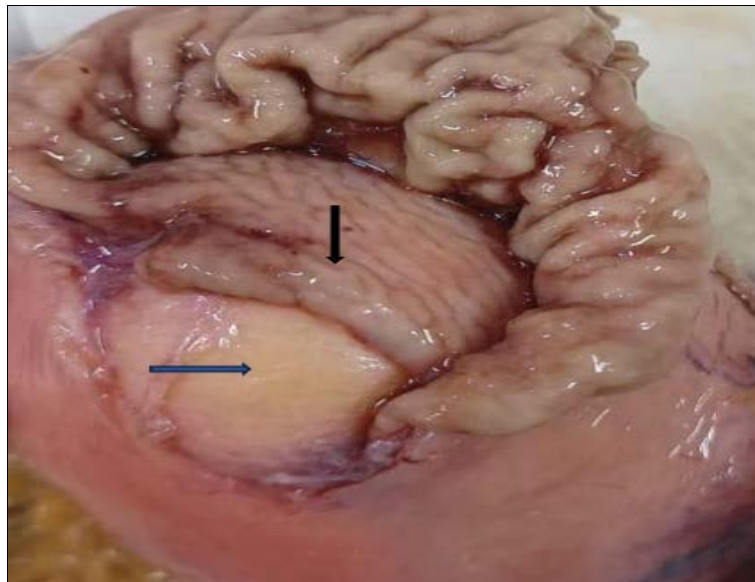


Fig 2: Gross image: Polypoidal lesion (Blue arrow) and overlying gastric mucosa (Black arrow)

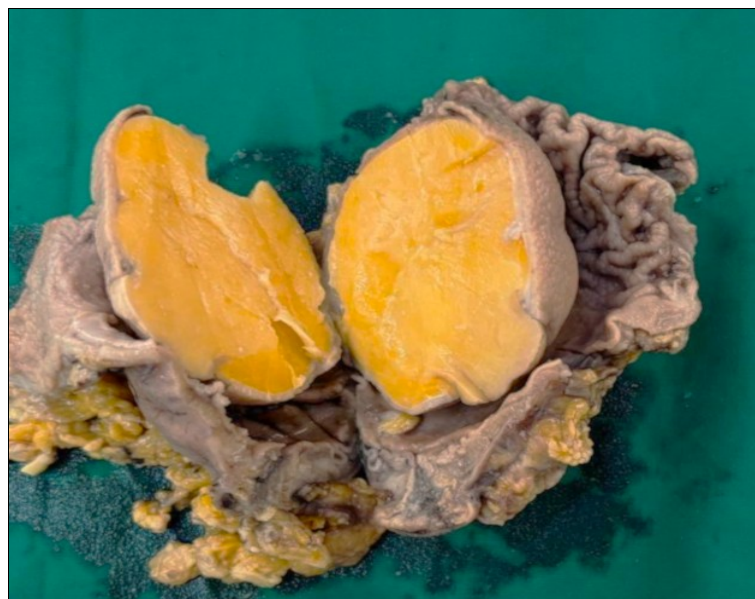


Fig 3: Gross image: Cut surface polypoidal lesion with homogenous yellowish areas

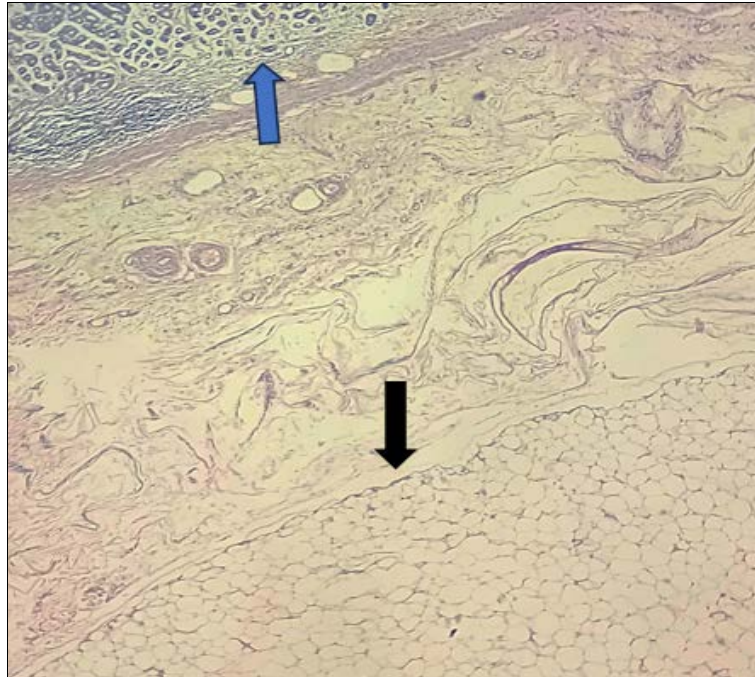


Fig 4 (H&E, 10X): Normal gastric mucosa (blue arrow) with well circumscribed lesion in the submucosa (black arrow)

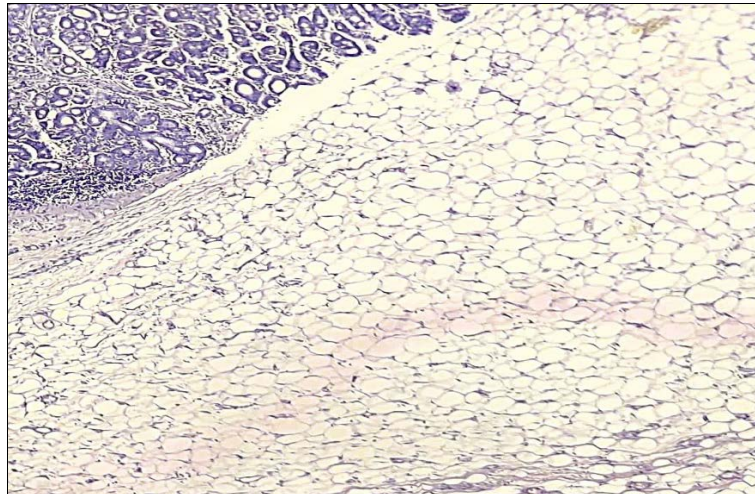


Fig 5 (H&E, 40X) : Sheets of mature adipocytes separated by thin fibrous septae in the submucosa

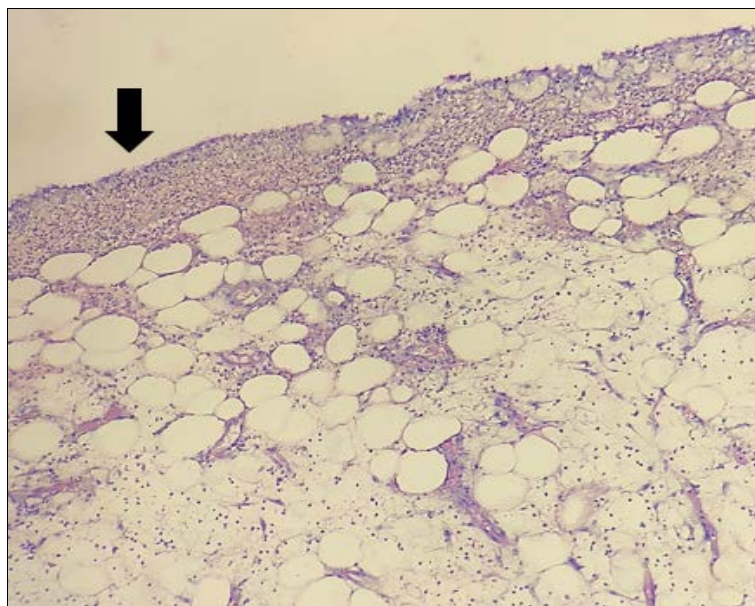


Fig 6: (H&E, 40X) : Ulcerated mucosal surface

Discussion

Lipomas are slowly growing benign tumours that arise from adipose tissue. Gastric lipomas represent only 5% of all gastrointestinal lipomas. They are generally asymptomatic and are often discovered incidentally^[4]. No specific risk factors have been linked to the development of gastric lipomas; however, these tumours are more commonly observed in diabetic patients, obese individuals, and people older than 45 years. Although most cases are identified incidentally and do not require treatment, lipomas larger than 2 cm may present with abdominal pain, altered bowel habits, dyspepsia, upper gastrointestinal bleeding, or obstruction. The bleeding is typically chronic and may result in anaemia, but in rare cases, acute bleeding can occur due to mucosal ulceration, leading to massive haemorrhage that requires emergency intervention or may cause intussusception. Gastric outlet obstruction is less frequent and is usually associated with pedunculated lipomas^[5].

Endoscopic and radiologic assessments play an essential role in the diagnosis of gastric lipomas. Among imaging techniques, CT scans offer a more definitive diagnosis^[6]. In this case, CT imaging demonstrated a well-defined mural fat attenuation lesion in the posterior wall of distal body / antrum of the stomach suggesting the presence of a lipoma. One of the differential diagnosis for gastric lipoma is liposarcoma. Other differential diagnoses include gastrointestinal soft tissue tumours such as fibroma, gastrointestinal stromal tumour, leiomyoma, neurilemoma, Brunner gland adenoma, adenomyoma and ectopic pancreas^[7].

Because of the benign nature of these tumours, both resection and enucleation are regarded as equally effective treatment options^[8]. Asymptomatic, small gastric lipomas discovered incidentally are usually managed through observation, whereas larger symptomatic lipomas require surgical removal. Traditionally, this has been performed using open or laparoscopic partial gastrectomy^[9].

Recurrence is uncommon (less than 5%) and is usually linked to incomplete removal, especially when the fibrous capsule is not fully excised. Therefore, no specific follow-up duration is recommended after complete surgical or endoscopic resection^[10].

Conclusion

Gastric lipomas are a rare cause of upper gastrointestinal bleeding. This diagnosis should be considered in patients with nonspecific gastrointestinal symptoms, particularly when imaging shows a submucosal mass. Surgical removal is curative for symptomatic or large lipomas, whereas asymptomatic lesions can often be managed conservatively with observation.

Conflict of Interest: NIL

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