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Case Report

Spontaneous mesenteric hematoma: Case report and review literature of a rare clinical entity [☆]

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ABSTRACT

Spontaneous mesenteric hematomas (SMH) are not a common entity. *Here we describe a case of 64 year old woman who presented with a vague abdominal pain and diffuse tenderness. Her CT abdomen revealed an ill-defined hyperdense mass like lesion in the mesentery and she underwent exploratory laparotomy which revealed a large hematoma in the mesentery with inflammation of the adjoining small bowel loop. Histopathology revealed findings consistent with hematoma with no evidence of neoplastic lesion.*

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Introduction

Mesenteric hematomas are not a common clinical entity and encountered rarely during imaging. They are usually secondary to varied etiologies like secondary to blunt abdominal trauma, as a complication of acute pancreatitis, peptic ulcer disease, secondary to any aneurysmal rupture, with underlying bleeding diathesis or in patients undergoing anticoagulant treatment. Spontaneous mesenteric hematomas form a subset of mesenteric hematomas which lack any underlying etiology.

Because of nonspecific clinical presentation, their diagnosis can be delayed and the imaging plays a crucial role in the management. We describe a case of a woman present-

ing to our institute with abdominal pain, nausea and diffusely tender abdomen. On CT imaging, a large high density lesion was seen in the mesentery in left paraumbilical region for which the patient underwent diagnostic laparoscopy and subsequent histopathology report was suggestive of a hematoma.

Case presentation

A 64-year-old female presented to our institute with complaints of generalized abdominal pain for 3-4 days and nausea since morning of presentation. Patient was a known case of hypertension on treatment with beta blocker and had a previous operative history of laparoscopic cholecystectomy.

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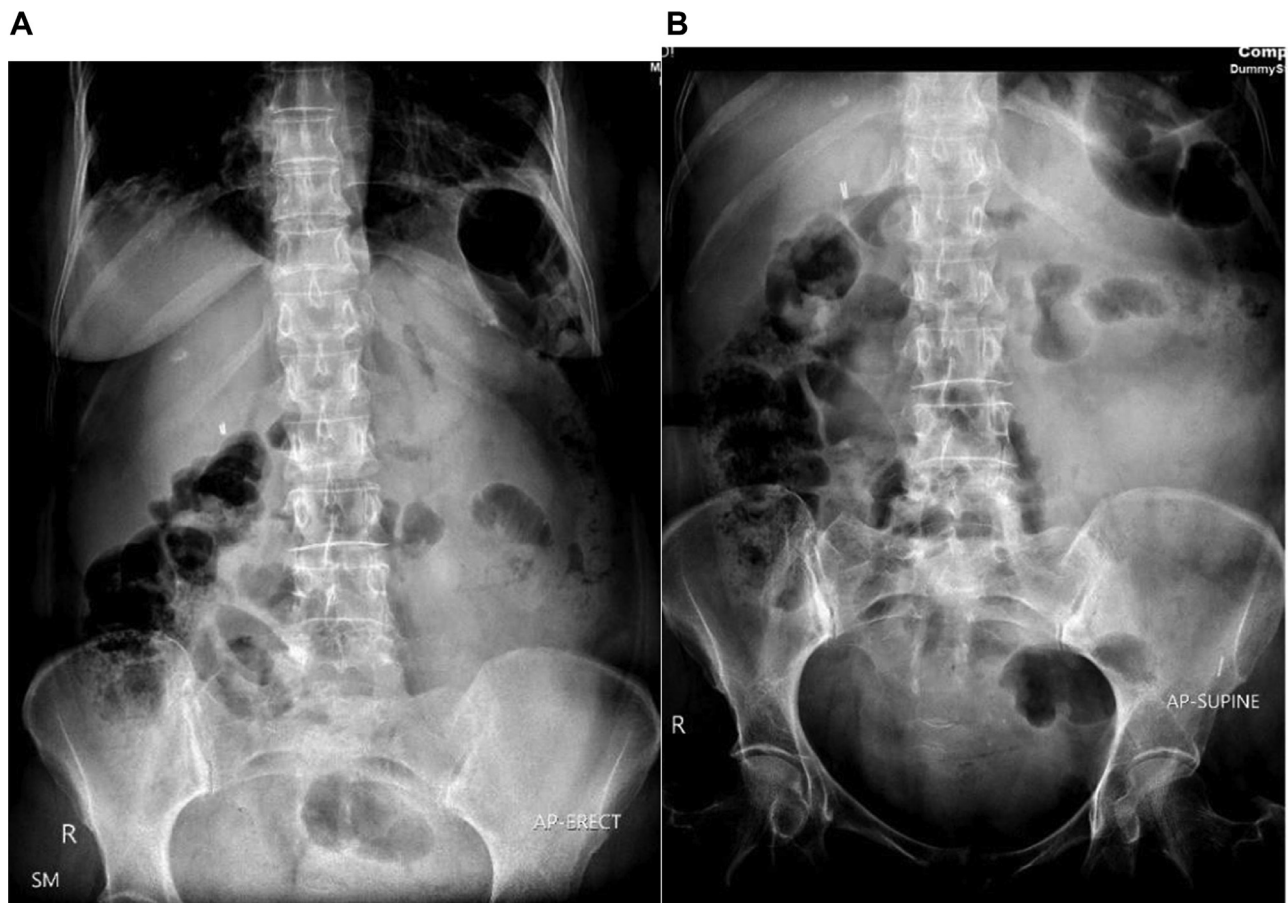


Fig. 1 – X-ray AP erect (A) and supine (B) showing an increased soft tissue density in left lumbar region, faecal loading of large bowel loops and surgical staples in right hypochondrium. No abnormal air-fluid levels seen and there is no evidence of free intraperitoneal air.

On examination, patient was noted to have mild icterus and a diffusely tender, distended abdomen. Bowel sounds were present. Ultrasound scan done outside our institute was suggestive of a solid mass measuring approx 6.8×3.8 cm in left lumbar/iliac region (provisional diagnosis of a mitotic lesion, likely gastrointestinal stromal tumor was given), adjacent dilated bowel loops, and moderate pelvic ascites. All baseline investigations and lab reports were noted and patient was kept NPO (nil per orally) and started on empirical treatment with intravenous (IV) antibiotics, IV proton pump inhibitor (PPI), IV antiemetic, IV fluids, and other supportive measures for pain management.

X-ray abdomen (Erect and supine) was done and suggestive of ill-defined increased soft tissue density in left lumbar region (Fig. 1), faecal loading of large bowel loops and surgical staples in right hypochondrium (consistent with history of laparoscopic cholecystectomy).

Contrast enhanced CT scan of the abdomen was then obtained and showed a large ill-defined high density lesion in mesentery in left paraumbilical region extending across L3-L5 vertebral levels. On plain scan (Fig. 2A) the lesion was seen to have high density (HU 35-50) and there was no significant enhancement in the lesion on post contrast images (Fig. 2B). Significant stranding was seen in the adjoining mesentery (Fig. 2B). The lesion was noted to closely abut the serosal as-

pect of adjacent jejunal bowel loop (Fig. 3A) which showed oedematous mucosal folds with thickened, enhancing walls (Fig. 3B) and reduced luminal caliber (Fig. 5).

Moderate perihepatic, right paracolic gutter and pelvic fluid was noted showing high density (approx. 30HU) suggestive of hemoperitoneum (Fig. 4). Provisional diagnosis was mesenteric hematoma however possibility of underlying mass could not be ruled out on imaging.

Patient then underwent diagnostic laparoscopy with excision of lesion and fluid drainage. Operative findings include a lobulated chocolate colored hemorrhagic collection (Fig. 6) in the mesentery. There was no obvious mass lesion in the mesentery or the bowel loops.

Sample of lesion was sent for histopathological examination. Microscopic examination showed findings consistent with that of a hematoma. No evidence of neoplasia or granuloma was seen.

Discussion and review of literature

Hemorrhagic collections in the mesentery are not commonly encountered in clinical practice. Most of the mesenteric hematomas are usually secondary to 1 or the other underly-

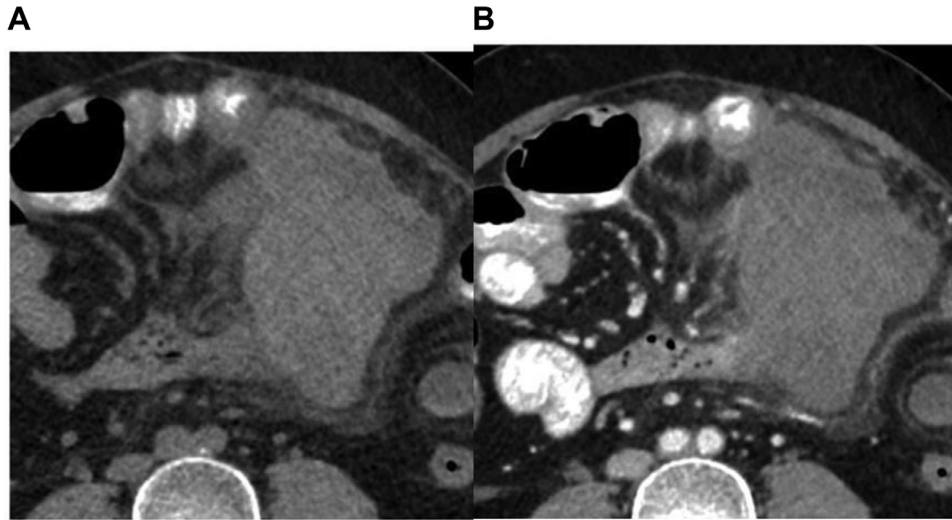


Fig. 2 – Axial plain (A) and contrast enhanced (B) CT images show an ill-defined hyperdense lesion in mesentery in left paraumbilical/lumbar region with surrounding mesenteric fat stranding. There is no evidence of enhancement in the lesion on post contrast images.

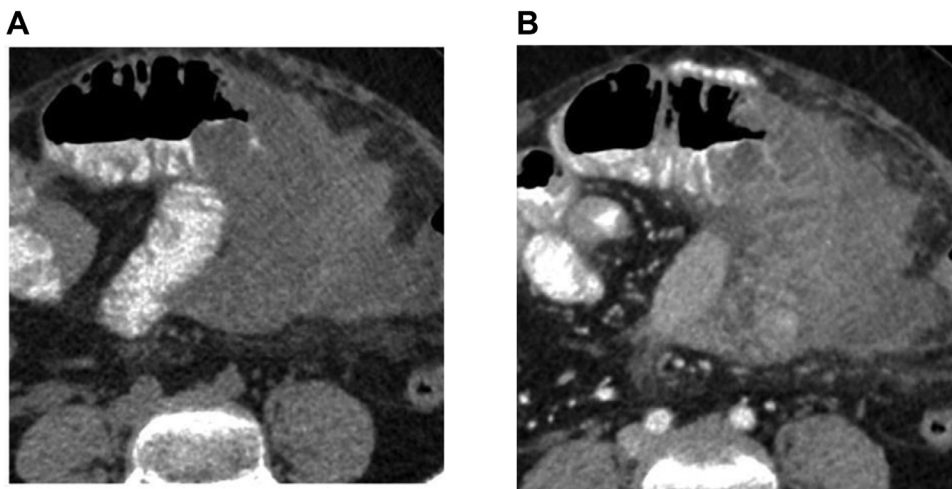


Fig. 3 – Axial plain (A) and contrast enhanced CT images (B) show the mesenteric lesion abutting the serosal aspect of adjacent jejunal bowel loop. The jejunal loop shows edematous mucosal folds with thickened, enhancing walls and reduced luminal calibre.

ing etiologies like abdominal trauma [1], including postoperative complications [2], mesenteric vascular diseases such as aneurysm and vasculitis [3], patients on anticoagulant therapy, pancreatitis, neoplasms such as leiomyomas, leiomyosarcomas or lymphoma. In the absence of any etiologies, it can be called as spontaneous mesenteric hematoma. Due to its nonspecific clinical presentation, there is often a delay in the diagnosis of mesenteric hematomas.

About 17 cases of mesenteric hematomas were reviewed by Aoki et al. [4] in Japan and they concluded that more than half were spontaneous in nature. Other causes were traumatic, iatrogenic and coagulation disorders.

Kedar et al. [5] reviewed 7 cases of mesenteric hematomas; out of which 2 was spontaneous, 3 were traumatic and 2 were secondary to anticoagulation therapy.

A study done by Hosaka et al. [6] described 3 cases of Spontaneous mesenteric hemorrhage in vascular type of Ehler Danlos syndrome, a collagen disorder that leads to marked distensibility and high wall stress of the artery, increasing likelihood of arterial dissection, rupture and aneurysm formation.

Presenting symptoms include abdominal pain of varying degree, depending upon size and location of the hematoma [7]. Small hematomas may go undetected and mostly resolve spontaneously. Nausea and constipation may also be noted with larger hematomas compressing the bowel loops [8,9]. Shikata D et al. [10] have described a case of spontaneous mesenteric hematoma rupturing into the jejunum and presenting with anal bleeding and anemia.

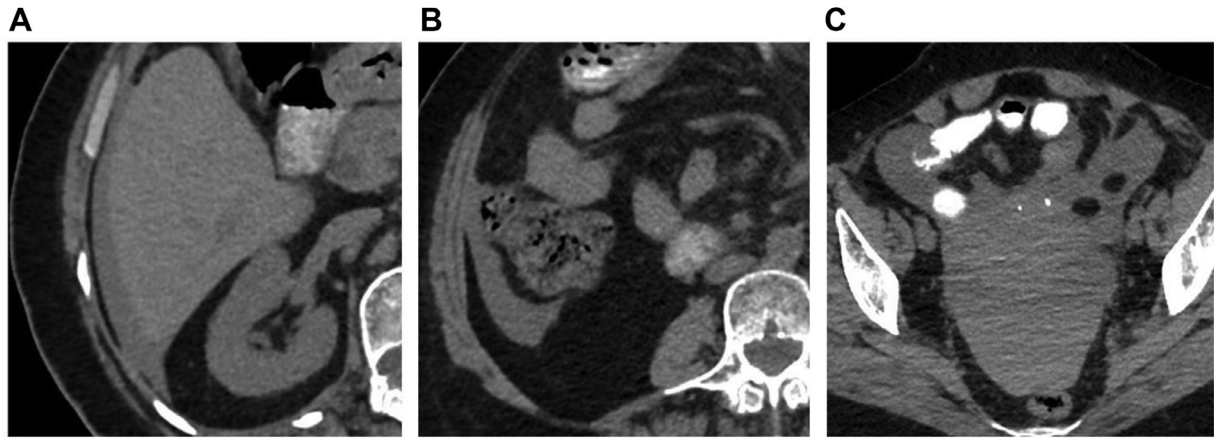


Fig. 4 – Axial plain CT images show mildly high attenuation (average ± 30 HU) perihepatic (A), right paracolic (B) and pelvic free fluid (C).

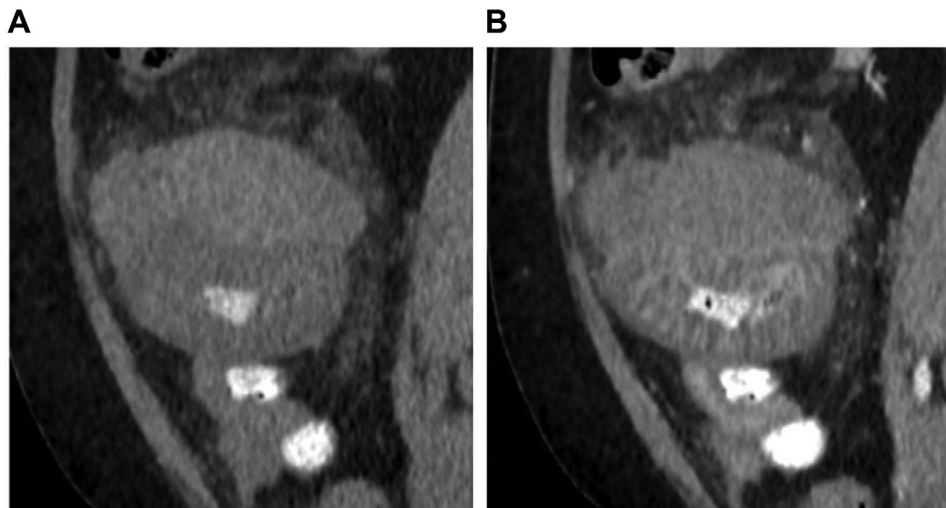


Fig. 5 – Sagittal plain (A) and contrast (B) CT images show the mesenteric lesion with surrounding fat stranding and mildly dilated, enhancing bowel loop with reduced luminal calibre.

In our case, patient had a generalized abdominal pain with a pain score of 4/10, diffuse tenderness with mild distension of abdomen and nausea. Nonspecific nature of symptoms makes diagnosis of mesenteric hematoma difficult just on basis on medical history and physical examination and warrants the use of diagnostic modalities like CT, ultrasonography and MRI [7].

However, a diagnosis of mesenteric hematoma may still be difficult to establish in certain cases. In a study conducted in Japan by Suzuki et al. [11] 36 cases were reviewed. They reported that 86% (31/36) of the cases were operated due to suspicion of a mesenteric tumor, abscess or aneurysm.

Controlled hemorrhages or in cases where underlying etiology cannot be found, can be managed conservatively with serial imaging evaluation; whereas, uncontrolled hemorrhages need surgical intervention in form of laparoscopy/laparotomy with hematoma evacuation [4].

A study done by Takashimizu et al. [12,13] reviewed 20 cases of SMH published in Japanese literature and analyzed the findings of imaging methods. Their results suggested that CT imaging of hematoma changes with time and is particularly difficult to diagnose SMH after a long time since onset. On standard CT imaging, the hematoma showed 70-90 Hounsfield units (HU) with high- and iso-density lesions within 0-14 days of onset, 20-30 HU with high- and low-density lesions within 14-28 days, and low-homogeneous lesions after 28 days. On enhanced CT imaging, the hematoma showed a well-defined lesion with an enhanced periphery within 14-28 days and sometimes accompanied by an enhanced septal wall like a polycystic lesion after 28 days.

We concluded a diagnosis of spontaneous mesenteric hematoma, as no underlying cause could be found on detailed radiological, intraoperative and pathological examination in our case.

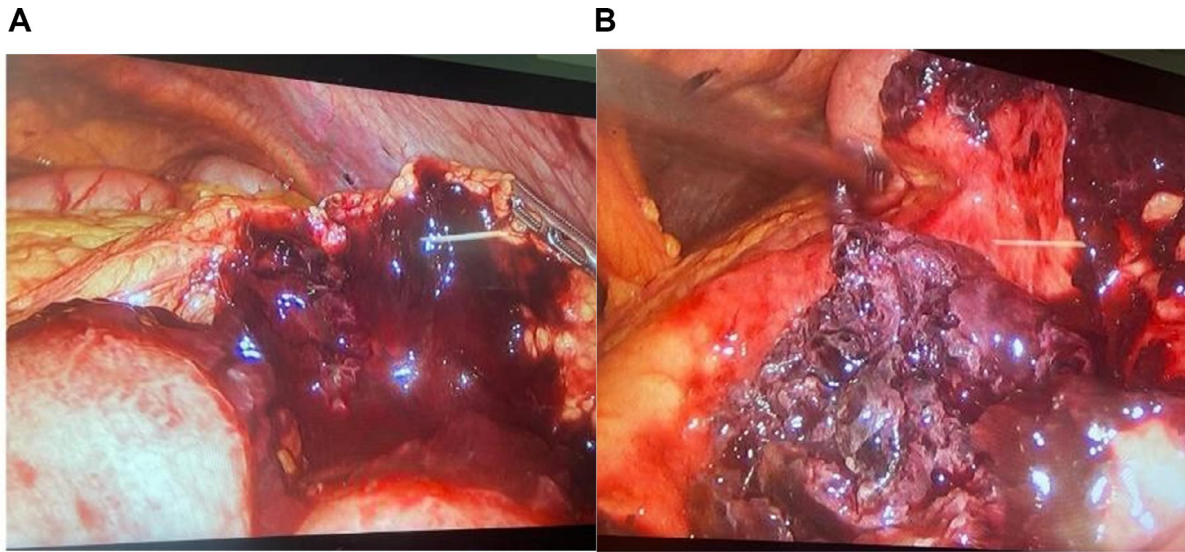


Fig. 6 – Intraoperative findings reveal a large hematoma in the mesentery. The hematoma was closely abutting the serosal surface of the adjacent jejunal loop. The loop was dilated and inflamed.

Conclusion

Mesenteric hematomas are not encountered frequently in clinical practice and based on the literature reviewed, the etiology of could be varied and in significant number of cases no cause of hematoma could be found. These spontaneous hematomas are important to recognize early and the imaging plays a significant role in the diagnosis. Management of these range from close observation to urgent surgical intervention and their timely recognition and appropriate treatment can contribute significantly in reducing morbidity and mortality in these patients.

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Nil.

Patient consent

Consent from the patient was obtained that the information about herself relating to the subject matter in relation to the article titled “ SPONTANEOUS MESETERIC HEMATOMA- CASE REPORT AND REVIEW OF LITERATURE OF A RARE CLINICAL ENTITY” would be used to appear in a journal. The patient understood that complete anonymity cannot be guaranteed. It is possible that somebody somewhere - perhaps, for example, somebody who looked after her, if I was in hospital, or a relative - may identify her.

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