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LARGE SPLENUNCULI MIMICKING AS MESENTERIC MASS

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ABSTRACT

An accessory spleen is a small nodule of splenic tissue found apart from the main body of the spleen. It is also called as supernumerary spleen, splenule or splenunculus. Present in upto 20% of the population, one or more accessory spleens may also occur in up to 30% of patients with hematologic disease & 10-44% of necropsies. Mostly it is asymptomatic and is found incidentally on Computer Tomography scan or during other abdominal surgeries. It is symptomatic in few cases where it presents as lump in abdomen. We present a case of large splenunculi presenting as lump in abdomen. Patient underwent excision of cyst with resection and anastomosis of the small bowel segment as it involved its mesentery in its entire breadth. A brief case report with review of literature is presented.

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INTRODUCTION

Spleen is the largest reticuloendothelial organ in the body. The most common anomaly of the splenic embryology is the accessory spleen consisting of an encapsulated mass of vascular and lymphoid tissue. Over 80% of accessory spleens are found in the region of the hilum and vascular pedicle.¹ The other locations for accessory spleens in descending order of frequency are the gastrocolic ligament, pancreatic tail, greater omentum, stomach's greater curvature, splenocolic ligament, small and large bowel mesentery, left broad ligament in women & the left spermatic cord in men.¹ The typical size is approximately 1cm, but sizes ranging from a few millimetres upto 2-3 centimetres are not uncommon. However, splenunculi presenting as a large lump in abdomen and mimicking a mesenteric mass of a size as huge as 10x10cm is an extremely rare entity. We present a case of large splenunculi mimicking mesenteric mass involving the mesentery for which excision with resection of the bowel segment was done. Follow up for one year is uneventful.

Case Report

A 40 year old male presented with complaint of lump in abdomen, in the umbilical region. It was insidious in onset, initially small to start with and gradually progressed over a

period of 6 months. He also complained of pain in abdomen, dull aching, dragging in nature, non-radiating, with no aggravating or relieving factors, responding temporarily on analgesics. Patient gave no history of trauma, surgery, fever, vomiting, constipation, loose motions, per rectal bleeding, hematemesis or melena. On examination, there was a lump 8x7cm palpable in umbilical region, mobile with smooth surface and regular margins. Ultrasonography (USG) was suggestive of heterogeneous lesion 7.2x6.6x6.3 cm seen in umbilical region with multiple solid and cystic components with largest measuring 3.3x3.1cm with mild vascularity. Contrast enhanced computed tomography (CECT) of abdomen was suggestive of spleen in normal anatomical position and a mesenteric mass lesion 7.9x6.8cm, hypo dense, in the medial and left paramedian regions in the plane of the bifurcation of aorta, with few calcific densities along the periphery of the lesion, possibly of neoplastic process with differential diagnosis as mesenteric carcinoid or gastrointestinal stromal tumour or lymphatous process (Fig 1A and 1B). 24-hour urinary 5-HIAA (5-hydroxyindoleacetic acid) was normal. Exploratory laparotomy with midline incision was done. Intraoperative findings revealed a large mass in the mesentery of jejunum around 40 cm from duodenojejunal flexure. It was sharing vascularity with the jejunal segment. Resection of the jejunal segment along with the mass was done (Fig 2A and

2B). Jejunojenual anastomosis was done after resection of the jejunal segment. Histopathologic examination was suggestive of splenunculi with congestive changes and foci of septal calcification (gamma gandy bodies) (Fig III). Immunohistochemistry was not done as histopathology was suggestive of splenunculi. Postoperative course was uneventful. Follow up of 1 year has shown him as disease and symptoms free.



Figure 1A CECT abdomen s/o Mesenteric mass lesion, mesenteric carcinoid/splenunculi

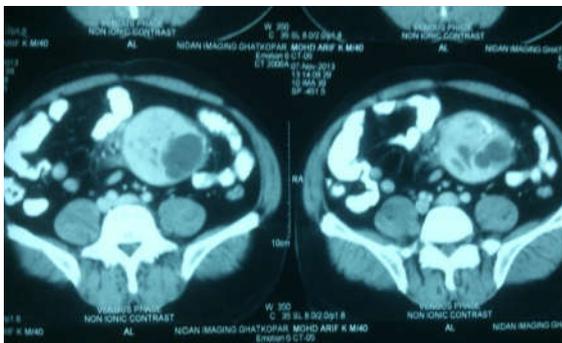


Figure 1B CECT abdomen s/o Mesenteric mass lesion, mesenteric carcinoid/splenunculi, with cystic and solid component within



Figure 2A Resected jejunal segment along with the mesenteric carcinoid



Figure 2B Large mesenteric carcinoid /splenunculi involving the entire mesentery

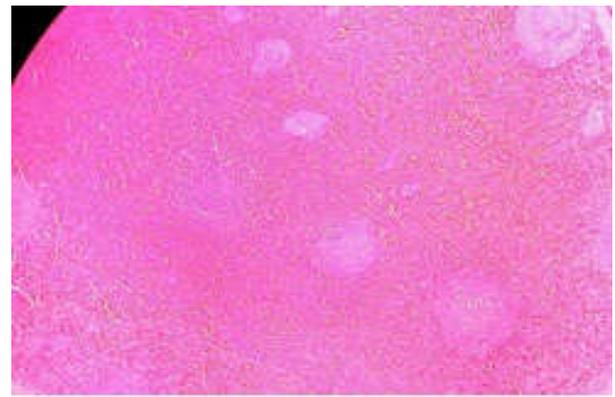


Figure 3 HPE showing splenunculi with congestive changes and foci of calcification

DISCUSSION

The most common anomaly of splenic embryology is accessory spleen. Its incidence in the general population is up to 20%. Accessory spleens may be present in up to 30% of patients with hematologic disease¹ & 10-44% of necropsies.² They may be found anywhere along the splenic vessels, in the gastrosplenic ligament, the splenorenal ligament, the walls of the stomach or intestines, the pancreatic tail, the greater omentum, the mesentery or the gonads and their path of descent. Size varies from a few millimetres to 2-3centimetres.¹By the fifth week of gestation the spleen is evident in an embryo 8mm long. It arises from the primitive mesoderm as an outgrowth of the left side of the dorsal mesogastrum. The organ continues its differentiation and migration to the left upper quadrant, where it comes to rest with its smooth, diaphragmatic surface facing posterosuperiorly. The imperfect fusion of the separate splenic masses give rise to an accessory spleen. Most often there is one accessory spleen (85%) sometimes two (14%) and rarely three or more (1%).² usually their size is not more than 2cm in diameter. The most common location is hilum spleen in gastrosplenic ligament(50%)³but may be found behind the tail of pancreas(30%) or rarely with greater omentum of the stomach, mesentery of the small intestine, mesocolon, pancreas,³ kidney⁴ and pelvis as an adnexal mass.⁵ Most of the splenunculi are asymptomatic and are discovered incidentally by abdominal ultrasound, CECT scan or laparotomy during the investigation of another problem.⁶ In a few cases they become symptomatic causing abdominal pain due to torsion and infraction.⁷ Accessory spleen needs to be distinguished from splenosis which is an acquired condition associated with splenic trauma or surgery having incidence of 67% in these patients.⁸ Accessory spleens resemble normal spleen in structure and immunologic functions.

Single or multiple splenunculi are a common findings on modern cross-sectional imaging.⁹ A mobile splenunculus however, as in this case, is a rare condition¹⁰ that may be misdiagnosed as a peritoneal or metastatic deposit or lymphomas. The important diagnostic features are changing position on interval scanning and identification of a vascular supply. Presentation of splenunculi in the body has been documented mimicking pancreatic neoplasm, GIST, Renal cell carcinoma, adrenal mass, peritoneal metastases, omental metastases, pelvic mass and retroperitoneal tumour etc.^{3,5,8,10,11,12,13} The most common differentials diagnosis of benign mesenteric mass includes mesenteric fibromatosis,

sclerosing mesenteritis, inflammatory pseudotumor, and extrapleural solitary fibrous tumour.¹⁴ However splenunculi masquerading as large mesenteric mass, as in this case has not been documented in the literature. Normally accessory spleens are incidental radiologic or intraoperative findings. They are harmless and of lesser significance in most of the patients. Sometimes large splenunculi may present as lump abdomen causing dragging pain in few patients, as in present case, and turn out to be of significant importance clinically. They may interfere with diagnostic evaluation while they mimic a large mesenteric cyst or lymphoma. The differential diagnosis includes intestinal duplication cyst, ovarian cyst, choledochal cyst, pancreatic cyst, splenic cyst or renal cyst, hydronephrosis, cystic teratoma, hydatid cyst, and ascites.¹⁵

The most common mode of acute presentation in children is that of a small bowel obstruction, which may be associated with intestinal volvulus or infarction. In present case, splenunculi presented as a large lump in abdomen mimicking a large mesenteric mass. As it involved a large part of mesentery, resection and anastomosis of the jejunal segment was done. On histopathology, the diagnosis was confirmed as a splenunculi.

Treatment in such cases is surgery. Excision can be done if it is small and not involving entire mesenteric width. However, in some cases resection and anastomosis of the bowel segment along with the splenunculi might be required. In present case as it was huge lump with complete mesenteric involvement, hence resection was done.

Splenunculi has been documented as mimicking pancreatic neoplasm, renal cell carcinoma, adrenal mass, peritoneal metastases, omental metastases, etc. However, splenunculi presenting as a large abdominal lump masquerading cyst, is rare presentation.

Post-operative course was uneventful and patient was discharged after histopathology report it as splenunculi and follow up for one year has been uneventful.

CONCLUSION

Splenunculi presenting as a large intraabdominal mesenteric lump is a rare entity. Hence, in cases of intrabdominal mobile lump presenting as a mesenteric mass, a possibility of large splenunculi should be considered as a differential diagnosis.

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