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Malignant fibrous histiocytoma of peritoneum presenting as intestinal obstruction

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Malignant fibrous histiocytoma (MFH) is a high-grade soft-tissue sarcoma of fibroblast-cell origin with a propensity for metastasis and recurrence. Primary MFH of the peritoneum is rare. We report a 60-year-old man with MFH of the peritoneum presenting with obstructive symptoms. Complete surgical excision of the tumor was done, and he is well six months later. [Indian J Gastroenterol 2001;20:242-243]

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Malignant fibrous histiocytoma (MFH) is an aggressive soft-tissue tumor that arises most commonly in the extremities and retroperitoneum. Local recurrence and metastases to the lungs and regional lymph nodes are frequent. Primary MFH of the peritoneum is extremely rare. We report a patient with MFH of the peritoneum presenting as acute intestinal obstruction.

A 60-year-old man presented with pain in the abdomen, distension, constipation and vomiting for four days. On examination, he looked ill and was dehydrated. His abdomen was distended and tense; there was tenderness and rigidity all over the abdomen. Hematological and biochemical parameters were normal. X-ray chest was unremarkable. On plain X-ray abdomen, there were multiple air-fluid levels suggestive of small bowel obstruction.

After rehydration and correction of electrolyte imbalance, exploratory laparotomy was done. There was a large mass arising from the parietal peritoneum, occupying almost the entire right side of the abdomen. The small gut was adherent to the mass at one place, with proximal dilatation. Resection of this mass along with resection-anastomosis of the adherent small gut was done. The mass measured 10 cm x 5 cm (Fig). On cut section, it contained cystic and solid areas; the cysts were filled with hemorrhagic fluid. There was no involvement of lymph nodes and no evidence of metastases elsewhere in the abdomen. Histology of the mass was consistent with malignant fibrous histiocytoma (stortiform pleomorphic type).

The patient had an uneventful recovery and is well 6 months later.

Malignant fibrous histiocytoma is the most frequently diagnosed malignant soft-tissue tumor in adults. It occurs most frequently on the extremities, followed by the trunk and retroperitoneum. It may also develop in other organ systems, but is extremely rare in the peritoneum. We could not find any earlier report of MFH arising from the peritoneum and causing intestinal obstruction.

A review of 200 patients with MFH showed that these tumors were most common between the ages 50 and 70 years, and have a 2:1 male predominance. Our patient was a 60-year-old man. Symptomatic secondary involvement of the gastrointestinal tract is rare. In our case the small gut was adherent to the tumor, but microscopically there was no evidence of infiltration of the gut.

Approximately 40% of tumors metastasize; the most common sites are the lungs (25%), lymph nodes (10%), liver (5%) and bone (5%). Depth of penetration of the primary tumor correlates best with the metastatic rate but size is not a reliable indicator. Complete surgical excision is the treatment of choice. Adjuvant chemotherapy and radiotherapy have not been definitively shown to be of value.

References

Brunner’s gland adenoma, also referred to as Brunner’s gland hamartoma, is a benign proliferative lesion of the duodenum. Until 1998, 143 cases had been reported in the English literature. These lesions may present with hemorrhage or obstruction or as incidental findings during laparotomy. Three macroscopic types are described: 1. diffuse nodular hyperplasia with lesions distributed all over the duodenum, 2. circumscribed nodular hyperplasia where a few small nodules may be present in the proximal duodenum, and 3. adenomatous hyperplasia where a single polypoidal lesion is encountered. Although the vast majority of these lesions have been treated surgically, endoscopic removal is now a popular alternative. We describe a patient with circumferential adenomatous hyperplasia that mimicked carcinoma and was not amenable to endoscopic treatment.

A 58-year-old man presented with one-year history of mild dyspepsia, and postprandial upper abdominal pain, nausea and vomiting of 3 months’ duration. He had lost 15 Kg body weight in these 3 months, which he attributed to decreased food intake. He had undergone upper gastrointestinal endoscopy 2 weeks and 3 weeks prior to referral to our center. Both examinations revealed a mass lesion in the duodenum with friability and ulceration. Biopsy on both occasions revealed nonspecific changes. As he tested Helicobacter pylori-positive, he had been given medical therapy for the same without relief in symptoms. On examination, the patient was emaciated. Abdominal examination revealed a firm, tender, 8 cm x 5 cm mass in the right hypochondrium extending to the epigas-

trium. Per rectal examination was normal.

Upper gastrointestinal endoscopy at our center revealed a small hiatal hernia, a linear ulcer in the lower esophagus, grossly distended stomach with fluid residue, rosy first part of duodenum, and a circumferential polypoidal lesion extending for 3-4 cm in the second part of the duodenum. Multiple biopsies revealed inflammatory changes in the duodenal mucosa; there was no evidence of malignancy. Contrast-enhanced CT scan revealed a soft tissue mass involving the circumference of the first and second parts of the duodenum with obliteration of cleavage planes between the mass and the inferior aspect of the head of the pancreas, inferior vena cava and left renal vein, suggesting local infiltration.

Laparotomy was performed through a right subcostal incision. A bulky growth involving the first and second parts of the duodenum was seen, adherent to but not infiltrating the inferior vena cava and left renal vein. There were hard retroperitoneal lymph nodes and fleshy hepatic artery nodes. The pancreas and bile duct were normal. There was no ascites or peritoneal/perihepatic nodules. With a diagnosis of duodenal carcinoma, the patient was subjected to pancreaticoduodenectomy with cholecystectomy, truncal vagotomy, distal antrectomy, and clearance of retropancreatic, choledocho-jejunostomy and hepatic lymph nodes. Reconstruction was achieved by pancreaticojejunostomy, hepatocoduodenal-jejunostomy and gastrojejunostomy; a feeding jejunostomy was performed for early enteral feeding. The postoperative period was free of complications. At 2 months’ follow up the patient is asymptomatic.

Cut section of the duodenum revealed a brownish, soft, papillary lesion in the second part, circumferential and extending longitudinally for 4 cm. Microscopy revealed lobules of hypertrophied Brunner’s glands flattening the overlying mucosa. The duodenal wall showed fibrosis and diffuse infiltration by lymphocytes, plasma cells and eosinophils (Fig).

Although Brunner’s gland adenomas are benign, there have been reports of carcinoma, dysplasia or carcinoid tumors in patients with Brunner’s gland adenoma. Atypical glands with p53 expression have also been reported recently.