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Giant Peritoneal Loose Body: An Incidental Finding

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Case Report

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Abstract: Peritoneal loose bodies are white or pale yellow lesions that are usually found as an incidental finding during abdominal surgery for any other condition. Loose bodies are usually sized less than 5 cm, giant loose bodies size more than 5 cm, are rare. Only a few cases are reported in the literature. These bodies are usually infarcted appendices epiploicae [2, 3] which become detached and appear as a peritoneal loose body in the abdominal cavity. Herein we report a case of a 65 year old male patient who presented as gastric outlet obstruction. During surgery we also found a detached loose body.
Keywords: appendices epiploicae, peritoneal loose body, gastric outlet obstruction, MRI, incidental finding

INTRODUCTION

Peritoneal loose bodies are white or pale yellow lesions that are usually found as an incidental finding during abdominal surgery for any other condition. Loose bodies are usually small in size, giant loose bodies size more than 5 cm, are rare. Only a few cases are reported in the literature [1-8]. Exact pathogenesis of formation of loose body is not known but the most common origin of these bodies are appendices epiploicae by the continues process of torsion, infarction, saponification and calcification [2,3].

Preoperative diagnosis of loose bodies is very difficult. Computed tomography (CT) and magnetic resonance imaging (MRI) are useful diagnostic tools for these lesions. However, it is hard to differentiate giant peritoneal loose bodies from lesions such as gastrointestinal stromal tumour (GIST), desmoid tumour, mesenteric calcification, leiomyoma, and appendicolith [4-6] preoperatively.

CASE REPORT

Herein, we report a case of a 65 year old male patient presented with complaint of vomiting from 10 days. He was unable to tolerate both liquids and semisolids. Patient was initially able to tolerate liquids. Gradual worsening of symptoms brought the patient to emergency. Patient was moderately dehydrated. An initial diagnosis of subacute intestinal obstruction was made however, on flat plate abdomen x-ray there were no significant air fluid levels. After initial resuscitation and routine investigations, MRI of abdomen and pelvis done. MRI was chosen over CT as renal functions were deranged. MRI revealed thickening of 1st and 2nd part of duodenum abutting pancreatic head and loss of fat planes with it. There was another 5.5 × 4.6 cm fibrous lesion seen in pelvis [figure1, 2]. Lesion was posterior to urinary bladder and anterior to rectum with well-defined fat planes. Radiologist reported the findings as gastric outlet obstruction along with a gastrointestinal stromal tumour in the pelvis. Exploratory laparotomy was planned. On exploration, a hard mass was present involving 1st and 2nd part of duodenum and head of pancreas. There was a 6 × 5 cm sized white coloured loose body present in pelvis [figure 3]. It was not adherent to any of the structures in pelvis and had no vascular supply or capsule. The shape of the body was oval with a small globular protrusion at one end. The surface was shiny with multiple granular protrusions all over it. It was homogenously hard in consistency. On cut section, there was a hard white central portion with surrounding concentric layering of tissue which became pale yellow at periphery [figure 4]. This loose body was removed and an anticolic gastrojejunostomy done to bypass gastric obstruction after taking a biopsy from the mass. Postoperative period was uneventful and patient discharged on 10th postoperative day.

Histopathology report of the mass revealed adenocarcinoma of duodenum. The biopsy of loose body showed abundant hyalinised collagen fibres and fibroblasts in periphery.

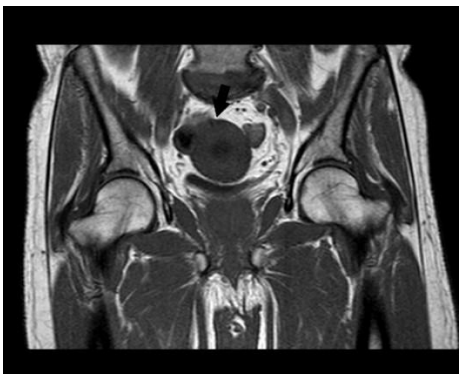

Fig-1: T1 weighted coronal section showing peritoneal loose body in pelvis (arrow)

Fig-2: T2 weighted sagittal section showing loose body posterior to urinary bladder (contrast enhanced)

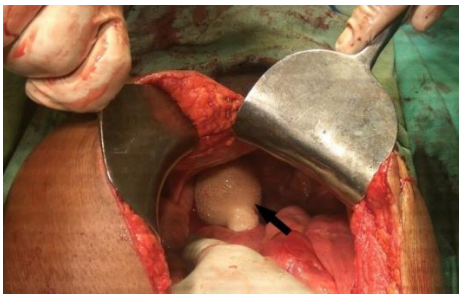

Fig-3: Intraoperative picture

Fig-4: Cut section of peritoneal body

DISCUSSION

Peritoneal mice, also known as loose bodies are mostly found as incidental masses during laparotomy [1,2,3,8]. When it is less than 5 cm, these peritoneal loose bodies are usually asymptomatic and do not require any treatment. however, these can reach a diameter of more than 5 cm occasionally called as giant peritoneal loose body and can cause obstructive symptoms such as bowel obstruction and urinary retention [7,8] necessitating surgical removal.

The exact pathophysiology is still not completely known, the current hypothesis is that appendices epiploicae undergo chronic torsion, leading to saponification, leading to calcification, fibrosis and, auto amputation. Once detached and free within the peritoneal cavity, exudative serum accumulates on the surface, resulting in an increase in size over time [5-8].

Differential diagnosis of giant peritoneal loose bodies includes lesions such as gastrointestinal stromal tumour (GIST), desmoid tumour, mesenteric calcification, leiomyoma, and appendicolith, retroperitoneal mass or lymph nodes. Computed tomography (CT) and magnetic resonance imaging (MRI) may be helpful in diagnosis but confirmatory diagnosis can be made only intraoperatively.

Treatment of symptomatic loose bodies includes excision.

CONCLUSION

Giant peritoneal loose body is a rare finding and high index of suspicion is required for diagnosis. The current case emphasises on the difficulty in preoperative diagnosis of peritoneal loose bodies.

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