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CASE REPORT

ULTRASONIC DETECTION OF PERITONEAL LOOSE BODY: A CASE REPORT WITH REVIEW OF LITERATURE

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Abstract

A loose body within the peritoneal cavity originates from an infarcted epiploic appendage that is detached from the serosa of colon which gradually transforms into a fibrotic or calcified mass. Many of these lesions go unnoticed but at times detected during laparoscopy or laparotomy. We report such a case detected by ultrasonography and the features are described so that the sonologist will be aware of this condition to establish correct diagnosis and avoid preventable surgery. To our knowledge, this is the first case report describing this entity in ultrasound literature.

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INTRODUCTION

Case Report

A 61 years old gentleman presented with recent onset lower abdominal pain and was referred for ultrasound study from a peripheral health unit of railway hospital. His urine routine examination results were normal. Blood picture including TC and DC were normal. Clinical examination did not reveal any positive findings. Ultrasonography revealed a hypoechoic solid mass lesion (Fig 1) measuring 4 cm X 3.5 cm size with a calcified central portion in the right iliac fossa adjacent to right iliac vessels, which was surrounded by bowel loops. No bowel dilatation was noted. Normal appendix was identified well away from the lesion. With these findings gastrointestinal stromal tumour (GIST) was considered.

Patient was further investigated by CT scan which showed a well defined soft tissue density lesion (Fig 2) measuring 4.2cm x 3.8cm in the right iliac fossa closely abutting the distal ileal loops and small bowel mesenteric fat. Central hyper dense area (12mm x 5mm) surrounded by small rim of fat density also was noticed. Lesion showed mild homogenous contrast enhancement. Bowel related lesion (stromal tumour) mesenteric lesions (desmoid tumour) and soft tissue neoplasm were the possibilities considered. Patient underwent laparotomy. A mobile cream coloured oval shaped mass measuring 4.5cm x 4cm size was removed which weighed 48gm. The surface was bony hard and glossy which appeared like boiled egg (Fig 3). Histology revealed lamellated strands of fibrinoid substance without any cellular component.

Discussion

Peritoneal loose bodies arise from appendices epiploicae. Appendices epiploicae are covered with visceral peritoneum seen along the entire length of colon. In case of torsion of appendices epiploicae its blood supply is cut off, pedicle atrophies and saponification and calcification of fat content occur. Finally it detaches from the colon

and becomes a peritoneal loose body (Gayer et al, 2011). In most cases, it is asymptomatic. Small loose bodies are often detected during laparotomy (Ghosh et al, 2006). But at times patient can present with pain which may mimic appendicitis. Giant loose bodies (>5cm size) are rare (Nomura et al, 2003; Mohri et al, 2010; Ohitani et al, 2007). It is important to differentiate from other lesions like fibroma, desmoid tumour, teratoma, metastatic ovarian tumour, calcified lymph nodes and mesenteric cysts. All these lesions tend to enhance with contrast (Dara et al, 2004) and differentiation by imaging techniques alone is often difficult.



Fig 1 Ultrasound appearance of peritoneal loose body- hypoechoic solid mass lesion with calcified central portion

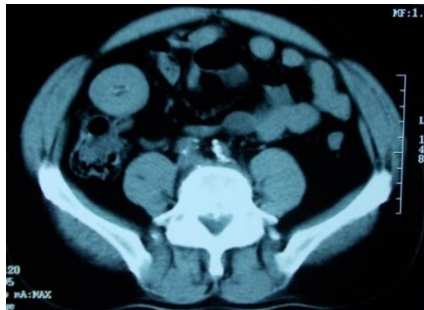


Fig 2 CT appearance - Well defined soft tissue density lesion with central hyper dense area surrounded by small rim of fat



Fig 3 Macroscopic appearance- Mobile cream coloured oval mass

Conclusion

Peritoneal loose bodies are rare clinical entities and imaging is often inconclusive and when symptomatic laparoscopy is recommended to relieve symptoms and to rule out neoplasm.

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