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Loose bodies within the abdominal cavity - a case report

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Abstract

Loose bodies of endogenous origin within the abdominal cavity are rare and often discovered incidentally during surgery. We report the case of a 62-year-old male undergoing elective laparoscopic hernioplasty in whom a mobile, pearly white oval mass was identified in the pelvic cavity and removed. Histopathological analysis revealed a benign fibro--hyaline nodule with central microcalcification and no evidence of malignancy. This case highlights the diagnostic challenge posed by these lesions, which may mimic malignant disease, and emphasizes the importance of histological evaluation for definitive diagnosis.

Keywords: Loose bodies; Abdominal cavity; Fibrohyaline nodule; Incidental finding

Introdution

The presence of free foreign bodies in the peritoneal cavity, are very rare occurrences.A classification was not foud available in the literature that clearly distinguishes between the various possible etiologies. Loose bodies within the abdominal cavity apparently originating from organic structures within the abdominal cavity itself, and have been sparingly documented within the surgical and radiologic literature.[1] Although rarely described in the literature, peritoneal loose bodies are often a diagnostic dilemma without surgical intervention. [2]

The authors encountered an oval-shaped mass in the abdomen, which histology revealed to be a fibrohyaline nodule (FN). The aim of this paper is to describe an unsuspected case of peritoneal FN during laparoscopic surgery.

Case Report

Male, 62 years old, admitted for elective hernioplasty due to umbilical hernia and right inguinal hernia. Personal history of acute coronary syndrome five years ago, hypertension, dyslipidemia, and BMI 28. Continued smoking habits, approximately 40 cigarettes per day. Seven years prior, he suffered multiple trauma due to a traffic accident, undergoing orthopedic stabilization surgery of D12, L1, and L2, and open left inguinal hernioplasty surgery three years prior.

He underwent ventral laparoscopic hernioplasty using the intraperitoneal onlay mesh repair technique, with herniorrhaphy of the umbilical hernial orifices and placement of a double-sided onlay prosthesis, 20 x 15 cm. Intraoperatively, a solid, pearly white oval lesion was identified (Figure 1), located in the pelvic cavity, fully mobile, with a diameter of approximately 3 cm, which was extracted using a collection bag. Right inguinal hernioplasty was then performed using the Lichtenstein technique. With a right inguinal hematoma. Discharge on the 1st postoperative day.
The result of the anatomopathological analysis of the specimen revealed a fibro-hyaline nodule with central microcalcification, without malignancy.

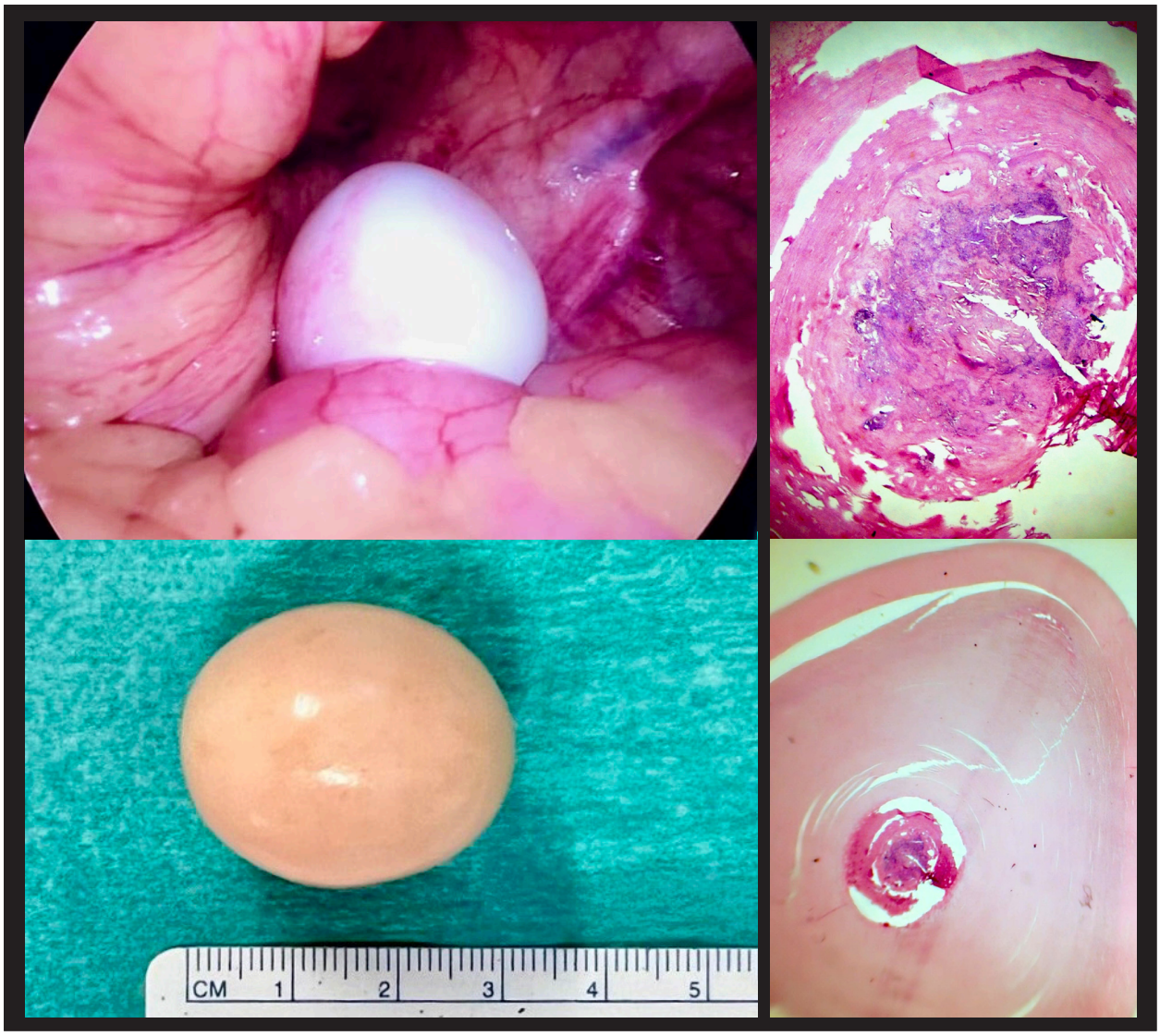

Figure 1. Two images of the intraperitoneal free body, one intracavity at the time of its discovery and after cavity extraction with a viscera collection bag, and two microscopy images of the pearly-colored nodule with a hard-elastic consistency measuring 3 x 3.2 x 2.5 cm, which corresponded to the histological diagnosis of a fibrohyaline nodule with central microcalcification, absence of malignancy.

Discution

The identification of loose bodies within the abdominal cavity is not recent. In 1703 Littre' discovered a pea-sized foreign body in the abdominal cavity that was thought to be the remains of an appendix epiploic; Cruveilhier (1849) and Deville (1851) also described foreign bodies in the abdominal cavity, which were assumed to have a similar origin.[3]

This case illustrates one of the pathological entities that can cause loose bodies within the abdominal cavity, with central calcification. A hyaline nodule is a descriptive term referring to a lesion with a glossy, refractile appearance on haematoxylin and eosin staining. Histologically, it represents a dense tissue formation composed predominantly of fibrosis and hyalinization, characterized by the deposition of vitreous, amorphous material. In the present case, histopathological analysis confirmed the absence of malignancy.

These nodules are typically benign and acellular and are commonly associated with inflammatory, scarring, or degenerative processes, including calcification or chronic irritation.

When we talk about loose bodies within the abdominal cavity, we are not referring to the same clinical entity in all cases. A classification of these cases is necessary to encompass all possible etiologies of these pathology.

References

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