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# Unexpected Peritoneal Loose Body Discovered During Laparoscopic Varicocelectomy: A Case Report

Authors' Contribution:  
Study Design A  
Data Collection B  
Statistical Analysis C  
Data Interpretation D  
Manuscript Preparation E  
Literature Search F  
Funds Collection G

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**Patient:** Male, 22-year-old  
**Final Diagnosis:** Peritoneal loose body  
**Symptoms:** Scrotal pain  
**Clinical Procedure:** Laparoscopic surgery  
**Specialty:** Urology

**Objective:** Rare coexistence of disease or pathology  
**Background:** Peritoneal loose bodies (PLBs) are rare, benign intraperitoneal entities usually discovered incidentally during abdominal surgery or imaging. Their occurrence during urologic laparoscopy appears to be infrequently reported and may create intraoperative diagnostic uncertainty when encountered unexpectedly.

**Case Report:** A healthy 22-year-old Jordanian man with no history of abdominal or pelvic surgery underwent bilateral laparoscopic varicocelectomy for symptomatic varicoceles. Dense sigmoid adhesions over the left internal inguinal ring required careful adhesiolysis to expose the spermatic vessels. During dissection, a smooth, freely mobile ovoid structure was identified within the left paracolic gutter and retrieved laparoscopically. Histopathological examination demonstrated necrotic adipose tissue with dystrophic calcification, confirming a PLB. The patient recovered uneventfully and reported resolution of his preoperative symptoms at the 3-week postoperative follow-up.

**Conclusions:** This report highlights that a PLB may be encountered unexpectedly even in a healthy patient with no history of abdominal or pelvic surgery who is undergoing an elective, limited-field laparoscopic urologic procedure. In the present case, the lesion's smooth surface, complete mobility, lack of visible vascular attachment, and firm, rubbery consistency supported intraoperative consideration of a benign PLB. This observation supports awareness that a similar freely mobile, avascular intraperitoneal body encountered unexpectedly during laparoscopy may represent a benign PLB; however, broader management implications cannot be established from a single case. Histopathological confirmation remains important when the diagnosis is uncertain.

**Keywords:** Laparoscopy • Minimally Invasive Surgical Procedures • Peritoneal Neoplasms • Varicocele

**Full-text PDF:** <https://www.amjcaserep.com/abstract/index/idArt/954629>

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## Introduction

Peritoneal loose bodies (PLBs), sometimes referred to as “peritoneal mice,” are uncommon, benign intraperitoneal entities that are usually discovered incidentally during abdominal surgery or imaging [1]. They are presumed to originate from torsion of epiploic appendages, which undergo ischemia, infarction, and subsequent autoamputation, after which they calcify or fibrose into firm, discrete nodules [2]. Their size may range from a few millimeters to several centimeters. Small lesions typically remain asymptomatic and occur more frequently in older men [3,4].

PLBs have been reported across multiple surgical disciplines, including general surgery and gynecology [5-7]. However, they appear to be infrequently reported in urologic laparoscopic practice, particularly during minimally invasive procedures such as laparoscopic varicocelelectomy, in which the operative field is usually confined to the spermatic vessels and internal inguinal ring. Unexpected identification of a freely mobile intraperitoneal structure during laparoscopy may raise concern for pathological entities such as lymphadenopathy, fat necrosis, granulomatous disease, or retained foreign material.

We describe the incidental identification of a histologically confirmed PLB within the left paracolic gutter during bilateral laparoscopic varicocelelectomy. Rather than proposing a causal mechanism or evaluating a management strategy, this report highlights the intraoperative recognition of a benign, mobile, avascular intraperitoneal lesion encountered unexpectedly during a limited-field urologic procedure.

## Case Report

A healthy 22-year-old Jordanian man presented with bilateral scrotal discomfort and clinically significant varicoceles. He had no history of abdominal or pelvic surgery, known inflammatory

bowel disease, or previous episodes of acute abdominal pain suggestive of epiploic appendagitis. Preoperative evaluation findings were unremarkable, and bilateral laparoscopic varicocelelectomy was planned.

After establishment of pneumoperitoneum and placement of trocars, inspection revealed dense adhesions tethering the sigmoid colon to the peritoneum overlying the left internal inguinal ring, obscuring visualization of the spermatic vessels and requiring careful adhesiolysis (**Figure 1**).

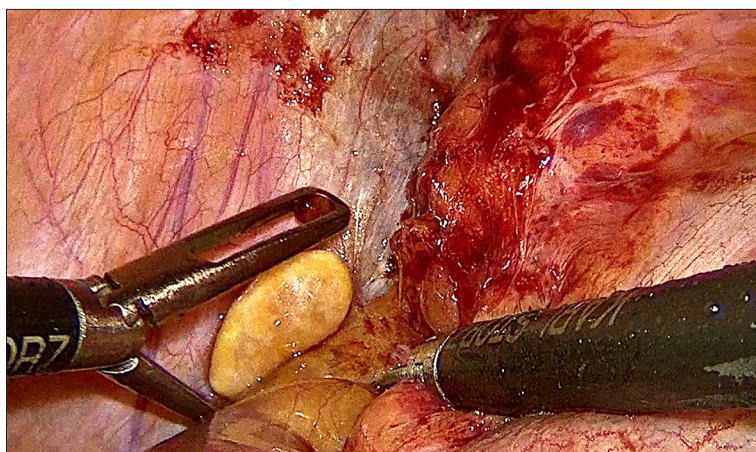
During release of these adhesions, a smooth, ovoid structure was visualized within the left paracolic gutter adjacent to the sigmoid colon (**Figure 2, Video 1**). The lesion was ivory-white to yellow, glistening, and freely mobile; it measured approximately 1 cm in greatest diameter. It had a firm, rubbery consistency, with no visible pedicle, vascular supply, or attachment to the surrounding tissues (**Figure 3**). Because the finding was unexpected in a medically healthy young patient without a history of abdominal or pelvic surgery, the lesion was immediately retrieved rather than left in place until completion of the procedure. It was gently handled with laparoscopic graspers, placed in a handmade endoscopic retrieval bag fashioned from the finger of a powder-free surgical glove, and removed intact through the 12-mm camera port without extending the incision. The operative area was then reinspected, including the left paracolic gutter, sigmoid adhesiolysis site, and peritoneum overlying the left internal inguinal ring. No additional lesions or abnormalities were observed.

Bilateral varicocelelectomy was then completed in the standard manner, including identification, clipping, and division of the spermatic veins. Hemostasis was secured. The patient had an uneventful recovery and was discharged home the same day.

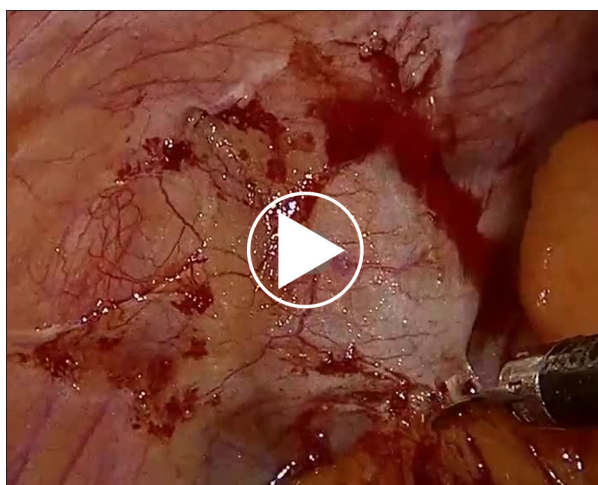
Histopathological examination showed necrotic adipose tissue with dystrophic calcification; there was no evidence of malignancy, confirming the diagnosis of a PLB. At the 3-week



**Figure 1.** Dense adhesions tethering the sigmoid colon to the peritoneum overlying the left internal inguinal ring, obscuring visualization of the spermatic vessels during laparoscopic varicocelelectomy.



**Figure 2.** Intraoperative laparoscopic view demonstrating a smooth, ovoid peritoneal loose body lying freely within the left paracolic gutter adjacent to the sigmoid colon during adhesiolysis.

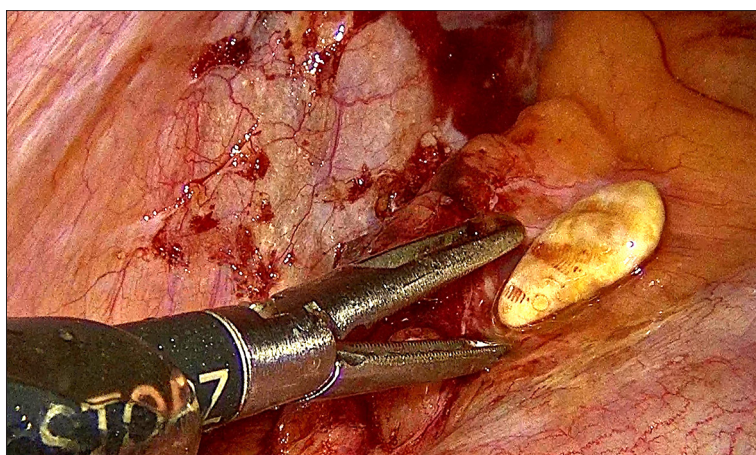


**Video 1.** Intraoperative laparoscopic footage demonstrating the final stages of sigmoid adhesiolysis, with exposure of a freely mobile peritoneal loose body within the left paracolic gutter adjacent to the sigmoid colon, followed by gentle manipulation demonstrating complete mobility.

postoperative follow-up, the patient reported resolution of his preoperative symptoms without postoperative complications.

## Discussion

PLBs are believed to result from torsion and infarction of epiploic appendages that subsequently detach and gradually transform into fibrotic and calcified structures within the peritoneal cavity [2,4]. Exposure to peritoneal fluid may contribute to progressive enlargement via protein deposition [1]. The present lesion, measuring approximately 1 cm in greatest diameter, lies at the smaller end of the size spectrum reported in the cited PLB literature, which ranges from a few millimeters to several centimeters. Therefore, the relevance of this case is not related to large size or mass effect but to the unexpected intraoperative recognition of a small, benign intraperitoneal body during laparoscopic varicocelectomy, particularly in the setting of adhesions that altered the expected operative anatomy and prompted immediate retrieval for histopathological confirmation.



**Figure 3.** Intraoperative laparoscopic view of the retrieved peritoneal loose body showing an ovoid configuration, smooth surface, and firm consistency immediately before laparoscopic extraction.

Most PLBs are discovered incidentally and are more frequently reported in older men [8]. Radiologic detection may lead to diagnostic uncertainty, particularly when lesions are large or atypically located [9]. Intraoperative discovery without preoperative imaging is less commonly described, especially in urologic laparoscopic practice. Such a finding may create diagnostic uncertainty when encountered unexpectedly during a procedure with a limited operative field.

The novelty of the present case is therefore contextual rather than pathobiological. PLBs are a recognized benign entity, and this report does not propose a new disease mechanism or management strategy. Instead, based on the literature cited in this manuscript, the present case appears to represent a rare and possibly previously undescribed urologic operative context, particularly during laparoscopic varicocelelectomy. Its practical value lies in highlighting how a benign, mobile, avascular intraperitoneal lesion may be encountered unexpectedly near the internal inguinal ring and may mimic more concerning pathology intraoperatively.

Laparoscopic varicocelelectomy is a minimally invasive option associated with rapid recovery and may be selected when a microsurgical approach is unavailable. Extensive colonic adhesions in patients without prior surgery are unusual. The adhesions may have coincided with—or possibly facilitated—recognition of the loose body during adhesiolysis; however, the exact relationship between the adhesions and the loose body cannot be determined from a single intraoperative observation.

This observation should be interpreted within clear boundaries. It concerns a single young patient with an incidental intraoperative finding and an operative field altered by adhesions. Therefore, it should not be interpreted as evidence of PLB prevalence during laparoscopic varicocelelectomy, a routine association between PLBs and varicocele surgery, or a standardized management strategy. Its relevance is limited to incidental intraoperative recognition, particularly when the anatomy is distorted or an unexpected intraperitoneal lesion is encountered during laparoscopy.

Although laparoscopic magnification enhances visualization, the absence of tactile feedback may render freely mobile, pale structures deceptively concerning to the operating surgeon [10]. In the present case, the lesion's smooth surface, complete mobility, avascularity, and firm consistency were compatible with

a benign PLB. However, these features are not diagnostic in isolation and should be interpreted within the operative context. This single case supports awareness that such an appearance may represent a PLB; broader implications for operative decision-making remain inferential and require further evidence.

## Conclusions

This report describes the incidental identification of a histologically confirmed PLB during bilateral laparoscopic varicocelelectomy. In the present case, the lesion's smooth, ovoid surface, complete mobility, lack of visible vascular attachment, and firm, rubbery consistency supported intraoperative consideration of a benign PLB. This finding supports awareness that a similar freely mobile, avascular intraperitoneal body encountered unexpectedly during laparoscopy may represent a benign PLB. However, this single observation does not establish broader management recommendations or outcome benefits. Histopathological confirmation remains important when the diagnosis is uncertain.

## Department and Institution Where Work Was Done

Department of General Surgery, Urology and Anesthesia, Faculty of Medicine, The Hashemite University, Zarqa, Jordan.

## Patient Consent

Written informed consent was obtained from the patient for publication of this case report, including all images and video material.

## Declaration of AI-Assisted Language Editing

During manuscript preparation, AI-assisted language editing was performed to improve grammar, clarity, and readability. The authors reviewed and edited the manuscript, verified all clinical and scientific content, and take full responsibility for the final version.

## Declaration of Figures' Authenticity

All figures submitted have been created by the authors who confirm that the images are original with no duplication and have not been previously published in whole or in part.

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