

Parasitic Leiomyoma as Peritoneal Loose Body Resembling an Enterolith

Peritoneal Serbest Cisim Olarak Enterolite Benzeyen Parazitik Leiomyom

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ÖZET

Peritoneal serbest cisimler herhangi bir organ yada yapıyla ilişkili değildir. Tekrarlayan bilgisayarlı tomografi (BT) incelemelerinde enterolite benzeyen serbest peritoneal taş şeklindeki tamamen kalsifiye olmuş ayrılmış uterus leiomyomunu sunmaktayız.

Anahtar Kelimeler: Parazitik leiomyom, Peritoneal Serbest cisim, Laparoskopi

ABSTRACT

Peritoneal loose bodies are not connected to an abdominal organ or structure. We present a totally calcified detached uterine leiomyoma, a free peritoneal stone, which appeared like an enterolith on repeated Computed tomography (CT) examinations.

Key words: Parasitic Leiomyoma, Peritoneal loose bodies, Laparoscopy

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Introduction

Peritoneal loose bodies are generally asymptomatic and discovered at operation, during routine autopsy or on radiological examinations.¹ The most common cause is thought to be the torsion and separation of the appendices epiploicae.² Ovarian tumors or autoamputated ovary,³ hepatic hydatid cyst migrated into the peritoneal cavity,⁴ and dropped gallstones after laparoscopic cholecystectomy⁵ are other reported origins. They are mostly found in pelvis, probably because they gravitate to the most dependent part of the abdominal cavity. The clinical importance is that, because of the limited space within the pelvic cavity, larger loose bodies could compress pelvic structures or led to diagnostic dilemma. It is important to differentiate peritoneal loose bodies from other lesions such as gastrointestinal stromal tumors, uterine smooth-muscle tumors, desmoid tumors and teratomas. We present another striking condition that calcified free lesions may resemble an enterolith in case they are very close to a small bowel segment and if echogenic wall of the small bowel is undistinguishable.

Case Report

A 42-year-old woman admitted with a history of pneumatic lithotripsy that was performed in another institution because of a distal left ureteral calculus. On control unenhanced CT obtained in our department, urinary system was normal, but there was a 2-cm stone in the right pelvic cavity close to the orifis of right ureter, right adnexa and distal ileal segments (Figure 1a).

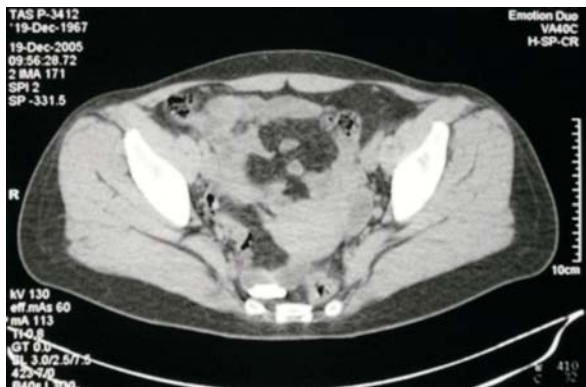


Figure 1A. Unenhanced axial CT image shows a 2-cm calcified mass in the right pelvic cavity close to the orifis of right ureter, right adnexa and distal ileal segment. The echogenic wall of the small bowel is undistinguishable.



Figure 1B. A flebolith is seen on the right side.

We investigated previous plain radiographies and noticed that the opacity was mobile in the right pelvic cavity (Figure 1b).

There was no previous history of abdominal surgery. Laboratory data were within normal limits. Physical and gynecological examinations were unremarkable. Four months later, she was admitted with nausea. On repeated unenhanced CT, the stone was located in pelvic region very close to a distal pelvic ileal segment. The echogenic

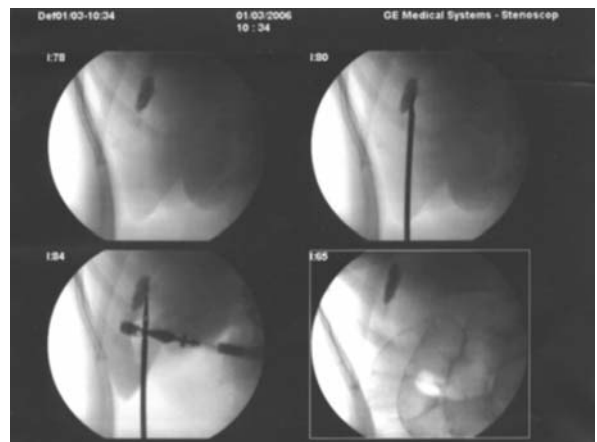


Figure 2A. At fluoroscopy-guided laparoscopic examination calcified mass was found in the subhepatic region.



Figure 2B. Macroscopic appearance of the peritoneal loose body, which measured 26 x 13 mm. It is oval-shaped, firm and its color varies from yellow to grey, depending on the extent of calcification. It has an irregular surface.

wall of the small bowel was undistinguishable (Figure 1a). Surgical extraction was planned to prevent possible ileal obstruction because of an enterolith. During fluoroscopy-guided laparoscopic examination, calcified mass was found free in subhepatic region and extracted (Figure 2a).

Macroscopically, it was an oval-shaped, firm and irregularly surfaced lesion that has a color varied from yellow to gray (Figure 2b). Histological examination revealed that the lesion was surrounded by a thin fibrous

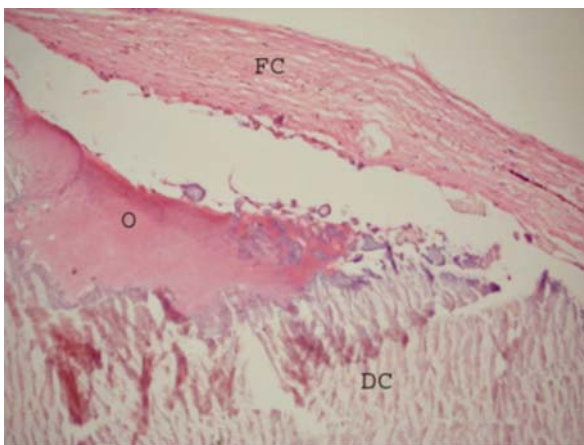


Figure 3A. Photomicrograph (original magnification, x200; hematoxylin-eosin stain) of the surgically removed specimen shows diffuse dystrophic calcifications (DC) with peripheral ossification (O). The lesion is surrounded by a thin fibrous capsular tissue (FC).

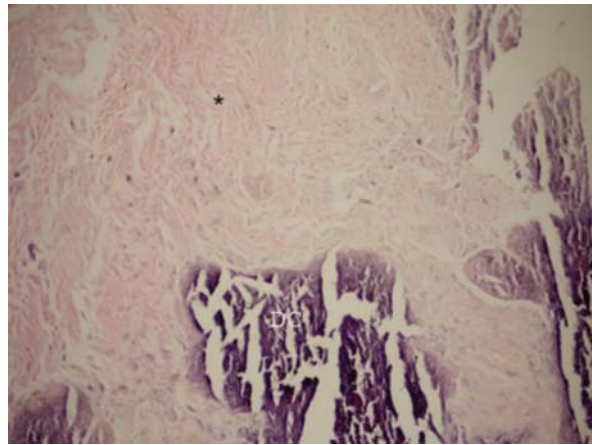


Figure 3B. Photomicrograph (original magnification, x200; hematoxylin-eosin stain) of the surgically removed specimen shows areas of dystrophic calcifications (DC) and leiomyomatous tissue architecture with anucleated spindle cells (asterisk).

capsular tissue and composed of diffuse dystrophic calcifications with peripheral ossification. Leiomyomatous tissue architecture with anucleated spindle cells and smooth muscle fibers were determined with difficulty. The diagnosis was a detached calcified uterine leiomyoma (Figure 3a and 3b).

Discussion

Completely unattached and mobile calcified peritoneal lesions are mostly discovered incidentally. With widespread use of CT, detection of these lesions may increase. In the present case, a 2-cm mobile peritoneal stone was detected in the pelvic cavity located very close to distal ileum on repeated CT examinations. Discriminating if the calcified lesion is intra or extraluminal may be difficult on routine axial CT images if it is located very close to small bowel and if the echogenic wall of the small bowel, which is the most useful factor for differentiation, is undistinguishable, as in our case. We performed a fluoroscopy-guided laparoscopic examination to prevent possible ileal obstruction and the lesion was found free in the right upper quadrant. In such cases, additional CT images may be taken by giving the patient different positions like lateral decubitus or prone. Furthermore, small bowel follow through or enteroclysis could be performed that may show the stone out of the barium filled small bowel lumen, before planning operation.

The free floating mass in our case might be associated with a parasitic leiomyoma probably originates as a pedunculated subserosal leiomyoma that twisted and detached from its uterine pedicle. Parasitic myomas are a rare variant of uterine leiomyomas. Parasitic myomas may occur spontaneously as pedunculated subserosal myomas lose their uterine blood supply and parasitize to other organs. More recently, a second theory has evolved which suggests "iatrogenic" parasitic myomas may be caused by the seeding of portions of fibroids during morcellation at the time of myomectomy.⁶ Discovering of calcified uterine myomas is not frequent

and the present case might give an idea of the natural course of calcified parasitic myomas

The management of a symptomatic loose body is usually surgical removal. Usually asymptomatic ones are also extracted to obtain definitive diagnosis on histopathological examination.⁷ Laparoscopy offers a minimally invasive tool to simultaneously inspect the abdominal cavity and treat the patient.⁸ Fluoroscopy-guided laparoscopy, as in our case, may help to find the hidden peritoneal loose bodies.

Conflict of interest statement None of the authors has any financial or other conflicts of interest to disclose.

References

1. Asabe K, Maekawa T, Yamashita Y, *et al.* (2005) Endoscopic extraction of a peritoneal loose body: a case report of an infant. *Pediatr Surg Int* 21:388-9.
2. Chan J. (2001) Images in Pathology: Intraperitoneal loose body (Peritoneal mouse). *Int J Surg Pathol* 9:223.
3. Koga K, Hiroi H, Osuga Y, *et al.* (2009) Autoamputated adnexa presents as a peritoneal loose body. *Fertil Steril*. doi:10.1016/j.fertnstert.2009.03.038.
4. Aldea A, Cioflea O, Gerota V, *et al.* (1980) Calcified hepatic hydatid cyst migrating into the peritoneal cavity. *Rev Chir Oncol Radiol O R L Oftalmol Stomatol Chi* 29:55-56.
5. Bennett AA, Gilkeson RC, Haaga JR, *et al.* (2000) Complications of "dropped" gallstones after laparoscopic cholecystectomy: technical considerations and imaging findings. *Abdom Imaging* 25:190-93.
6. Kho KA, Nezhat C. (2009) Parasitic myomas. *Obstet Gynecol*. 114:611-5.
7. Ghosh P, Strong C, Naugler W, *et al.* (2006) Peritoneal mice implicated in intestinal obstruction: report of a case and review of the literature. *J Clin Gastroenterol* 40:427-30.
8. Murat FJ, Gettman MT. (2004) Free-floating organized fat necrosis: rare presentation of pelvic mass managed with laparoscopic techniques. *Urology* 63:176-7.