

Acute post-traumatic dermoid peritonitis: a rare entity

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September 6, 2022

Abstract

Rupture of ovarian dermoid-cyst is rare case. We report the case of a woman admitted for acute post-traumatic abdominal pain due to ruptured ovarian cyst. The patient was operated and we found a very abundant peritoneal effusion with left ovarian cyst which was broken. we performed a left adnexectomy.

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Conflict of Interest :

none for all authors

ACKNOWLEDGEMENT

None declared.

AUTHOR CONTRIBUTIONS

S Fendri conceived the idea for the document and contributed to the writing and editing of the manuscript.

H Rejab contributed to the writing and editing of the manuscript.

A Trigui reviewed and edited the manuscript.

B Abid reviewed and edited the manuscript.

Y Majdoub reviewed and edited the manuscript.

A Bouzid reviewed and edited the manuscript.

K Fourati reviewed and edited the manuscript.

S Boujelbene contributed to the literature review, manuscript writing, editing, and review of the manuscript. All authors read and approved the final manuscript.

ETHICAL APPROVAL

Personal data have been respected.

CONSENT:

Written informed consent was obtained from the patient to publish this report in accordance with the journal's patient consent policy.

DATA AVAILABILITY STATEMENT:

Personal data of the patient were respected.

Keyword:

; Ovarian cyst ; dermoid ; Peritonitis ;

Introduction :

Dermoid peritonitis is secondary to intraperitoneal rupture of a dermoid cyst (or mature teratoma). This is the most common complication after torsion. The rupture can be in a hollow organ or in the peritoneal cavity.

Observation :

A 75-year-old patient, with no particular pathological history, admitted for acute post-traumatic abdominal pain. Indeed, she was the victim of a domestic accident: She was fallen from her height.

The clinical examination found the temperature at 38°C, diffuse abdominal tenderness and significant abdominal distension.

Biology showed a biological inflammatory syndrome with hyperleukocytosis at 16,500 elements/mm³ with a CRP at 78 mg/l.

CT scan found a left ovarian cyst with a dermoid appearance (calcifications with heterogeneous contents) associated with abundant intraperitoneal effusion with diffuse infiltration of intra-abdominal fat. A ruptured ovarian cyst in the peritoneum was concluded.

The patient was operated urgently. We found a very abundant peritoneal effusion made of sero-hematic fluid, sebum, tufts of hair and some hard calcium debris (Figure 1). There was also a left ovarian cyst which was broken (Figure 2). Regarding her age, we performed a left adnexectomy removing the ruptured dermoid cyst with abundant peritoneal cleaning (Figure 3).

The postoperative course was simple after 2 days in intensive care unit.

Discussion :

The dermoid cyst is a very common ovarian tumor (approximately 25% of ovarian tumors) [1]. It occurs mainly in women during period of genital activity [2].

In half of the cases, it is asymptomatic [2-5]. It can be discovered as a result of pelvic pain, menstrual irregularities or complications [2,5].

Diagnosis is based on imaging data, particularly ultrasound and CT, which highlight the presence of heterogeneous calcium and fatty components [6]. The complications of these ovarian cysts are dominated by torsion (15%), rupture (1.3%), infection (1 to 2%) and more rarely haemorrhage [2].

Rupture in the peritoneum is complicated by chemical peritonitis [2,8,9]. The treatment of ruptured dermoid cysts of the ovary is surgical, either by laparotomy or by laparoscopy.

Cystectomy is the standard procedure in young women, while oophorectomy or adnexectomy is most often performed in postmenopausal women [7,10].

Abundant washing of the peritoneal cavity should be performed with saline solution and all visible particles of dermoid material (hair, bone, fat and sebum) should be removed [10].

Examination of the anatomico-pathological specimen is essential and mandatory in order to confirm the diagnosis and to look for an immature dermoid component, in which case further surgery or chemotherapy should be discussed.

Conclusion :

Dermoid peritonitis is a rare condition secondary to sudden rupture (acute form) or cracking (torpid form) of an ovarian teratoma. This diagnosis should be considered in the presence of peritonitis of non explained etiology, especially when the CT scan reveals a mature teratoma. It is important to evoke the acute form in a woman of childbearing age, presenting a picture of severe pelviperitonitis.

Références:

- [1] Peterson WF, Prevost EC, Edmunds FT, Mason Hundley J, Morris FK. Benign cystic teratomas of the ovary. A clinicostatistical study of 1007 cases with review of the literature. *Am J Obstet Gynecol* 1995;70:368–82.
- [2] Huc M, Lafay-Pillet MC, Lecuru F, Ruscillo MM, Chevalier JM, Vildé F, et al. Peritonite granulomateuse après traitement coeliosurgical d'un kyste dermoïde de l'ovaire : diagnostic, prise en charge, prévention à propos d'un cas. *J Gynecol Obstet Biol Reprod (Paris)* 1996;25:365–72.
- [3] Comerçi JT, Licciardi F, Bergh PA, Gregori C, Breen JL. Mature cystic teratoma: a clinicopathologic evaluation of 517 cases and review of the literature. *Obstet Gynecol* 1994;84:22–8.
- [4] Rubod C, Triboulet JP, Vinatier D. Kyste dermoïde de l'ovaire compliqué d'une péritonite chimique. À propos d'un cas. *Gynécologie Obstétrique Fertil.* 2007 Jul;35(7–8):651–3.
- [5] Morgante G, Ditto A, La Marca A, Trotta V, De Leo V. Surgical treatment of ovarian dermoid cysts. *Eur J Obstet Gynecol Reprod Biol* 1998; 81:47–50.
- [6] Hertzberg B, Kliewer M. Sonography of benign cystic teratoma of the ovary: pitfalls in diagnosis. *Am J Roentgenol* 1996;167:1127–33.
- [7] El Moussaoui M, Closon F, Brichant G, Kotzampassakis N, Nisolle M. Chemical peritonitis complicating the spontaneous rupture of a dermoid cyst of the ovary. *Rev Med Liege* 2018; 73 : 7-8 : 408-12.
- [8] Achtari C, Genolet PM, Bouzourene H, De Grandi P. Chemical peritonitis after iatrogenic rupture of a dermoid cyst of the ovary treated by coelioscopy. A propos of a case and review of the literature. *Gynakol Geburtshilffliche Rundsch* 1998;38:146–50.
- [9] Fiedler EP, Guzick DS, Guido R, Kanbour-Shakir A, Krasnow JS. Adhesion formation from release of dermoid contents in the peritoneal cavity and effect of copious lavage: a prospective, randomized, blinded, controlled study in a rabbit model. *Fertil Steril* 1996;65:852–9.
- [10] Milad MP, Olson E. Factors that increase the risk of leakage during surgical removal of benign cystic teratomas. *Hum Reprod* 1999;14:2264–7.

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