

Teratoma and endometriotic ovarian cysts on ipsilateral ovary occurring after ectopic pregnancy. Case presentation of a rare association

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Abstract

We present a case of ovarian endometriosis associated with teratoma ovarian cyst. This is a case of 30 years old patient, Para 1, admitted in the hospital for ovarian mass on a single ovary. She had previously been operated for ectopic pregnancy associated with mature teratoma cyst of the right ovary, which required right adnexectomy. The ultrasound scan described at present increased left ovary of 6 cm, with 2 different cystic structures: one homogenous of 40/30mm, and one of 30/44mm heterogenic mostly anechogenic with an intracystic hyperchogenic image. The CA 125 was increased- 45 IU/l, and therefore the surgical exploration was decided. It showed both an endometrioma and a teratoma, the internal echo being a tooth fragment. A double cystectomy was performed, and ovarian tissue was spared, in relation with patient's age and wish for future pregnancies. In conclusion, we think this case presents a peculiar ovarian pathology association, in a patient in which CA 125 and ultrasound aspect were misleading regarding the nature of cysts. There are only three such cases described in the literature, and this is the first one with bilateral teratoma cyst with endometrioma, and the difficulties of diagnosis justifies its presentation here.

Keywords: ovarian cyst, ectopic pregnancy, teratoma, ultrasound

Introduction

Although different in pathogenesis, endometriotic and dermoid cysts are common ovarian tumors for reproductive age women. Their concomitance is rarely reported in literature from our knowledge.

Case presentation

We present a case of an association of dermoid and endometriotic cysts on single ovary, in 30 years old G2P1 women. From her past history we notice a ruptured ectopic pregnancy 9 years before present admission, and during surgery a teratoma was described on the right ovary. The decision was taken to do right adnexectomy, and pathological examination confirmed the diagnostic.

At present, she came with left iliac fosa pain, and clinical and ultrasound examination described an increased left ovary of 6 cm, with 2 different cystic structures: one homogenous of 40/30mm, and one of 30/44mm heterogenic mostly anechogenic with an intracystic hyperchogenic image (Figure 1).

The CA 125 was increased- 45 IU/l, and therefore the surgical exploration was decided. It showed both an endometrioma and a dermoid cyst, the internal echo being a tooth fragment. The decision of surgical management was taken, and a double unilateral cystectomy



Figure 1. Ultrasound aspect of endometriotic cyst (left) and teratoma (right)

was performed, with the purpose of preserving as much as possible of her ovarian tissue. The postoperative evolution was uneventful, and at 3 months follow up, she presented with regular menses and a FSH level of 13 IU on day 2. The macroscopic image of both tumours (Figure 2 and Figure 3) was confirmed by pathological microscopic exam.

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Figure 2. Teratoma cyst

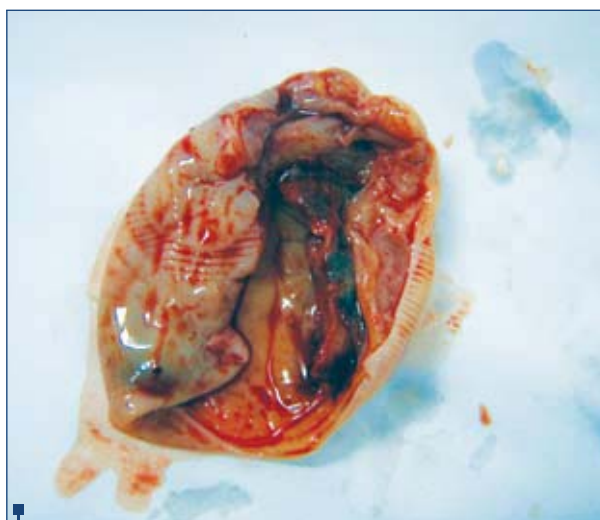


Figure 3. Endometriotic cyst

Discussion

Teratomas of the ovary are germ-cell neoplasms developed from the three primitive germ layers. They are usually found during reproductive period, although reports of later postmenopausal description are cited in literature⁽¹⁾. Bilateral occurrence of teratoma cysts in ovaries varies in the literature, with 10-15% frequency⁽²⁾. Interesting reports of multiple cysts are seldom found, such reports being the one of Bournas et al, that described 5 simultaneous teratoma cysts in a bilateral occurrence⁽³⁾. Another report mentioned 9 teratoma simultaneous cysts, solved also by laparoscopy⁽⁴⁾.

Simultaneous occurrence of endometriosis and ovarian teratoma is also very rare. In a case presentation, Frederick et al described a bilateral teratoma cyst associated with endometriosis foci which were removed by laparoscopy⁽⁵⁾. The only cases described in literature of bilateral ovarian teratoma associated with endometrioma dates from 1997, in the report of Caruso.⁽⁶⁾, and of Frederick J et al.⁽⁷⁾, but in the latest there were bilateral teratomas and endometriosis foci, not a real cyst. Chen TC et al.⁽⁸⁾ also described a coexisting endometriotic and teratoma cysts, on a single ovary, and stated that there are only 2 previous other such associations described in the literature from 1950-2010.

In our case the particular aspects regarded:

- bilaterality of the teratoma cysts;
- occurrence of endometriotic cyst 9 years after the ectopic pregnancy;
- the possibility to enucleate both cysts on the left ovary without damaging the cortex too much.

As discussed in Caruso's article, endometrioma may help reveal an otherwise silent teratoma, or, in our case, an ectopic pregnancy was the initial event.

Another interesting aspect is the possible link between the endometriotic cyst and the previous contralateral ruptured ectopic pregnancy, which could lead

to a possible pathogenic mechanism of endometriosis occurring after ectopic pregnancy, as it does with other sites - such as cesarean scar^(9,10). Also, secondary implantation of endometriotic tissue was described in the umbilical scar after laparoscopy⁽¹¹⁾.

As the series in the literature are so small, we can only speculate if a ruptured ectopic could lead, in certain cases, to endometriotic implants, for example on the contralateral ovary.

In conclusion, the simultaneous occurrence of teratoma and endometriotic cysts remains a rare association, with probably different pathogenic mechanism, but similar management. If a diagnostic is made, by good quality ultrasound, the classic (in our case) or laparoscopic approach is capable of preserving some of the ovarian tissue. ■

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