ejpmr, 2020,7(8), 164-166

SJIF Impact Factor 6.222

EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.ejpmr.com

Case Study

ISSN 2394-3211

EJPMR

OVARIAN ADENOMATOID TUMOR COEXISTING WITH MATURE TERATOMA: A RARE CASE REPORT

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Article Received on 09/06/2020 **Article Revised on 29/06/2020** **Article Accepted on 19/07/2020**

SUMMARY

Objective: The aim of the study is to present a rare case of adenomatoid tumor (AT) coexisting with mature cystic teratoma (MCT) in the righr ovary. **Material and Methods:** Herein we report a case of two coexisting benign tumors of different origin recorded in a 22-year period of 1998 – 2019 in our Department. A 64-year-old woman underwent right adnexectomy by laparoscopy on 17 June, 2010. **Results:** The intraoperative examination found a benign lesion, decisive for the extent of surgery. The postoperative course was uneventful. No other complications related to the surgical treatment of the disease have been reported so far. **Conclusions:** The review of literature shows that this is the second case report on co-occurrence of AT and MCT in the ovary. In the case co-occurrence of tumors precise histopathological examination of samples obtained during surgery determines the extent of undertaken surgery appropriately for the disease found.

KEYWORDS: Ovarian adenomatoid tumor / Mature teratoma.

INTRODUCTION

Adenomatous tumors (AT) in the female reproductive organs are rare, often localized in the uterus, with a frequency of 1.2%. However, their occurrence in the oviducts, ovary and broad uterine ligament is described as extremely rare. Therefore, the number of detected cases is very limited.[1,2,3,4] The average age of women with AT in the reproductive organs - in one publication - was 54 (range 23 to 79 years).[5] ATs originate from differentiated mesothelial cells.[6] Mesothelial origin of AT is confirmed by ultrastructural and immunohistochemical examinations.[7] Considering histological typing, the following subtypes are distinguished, i.e. adenoid, angiomatoid, solid and cystic, as well as a combination of more than one subtype.[4,7,8]

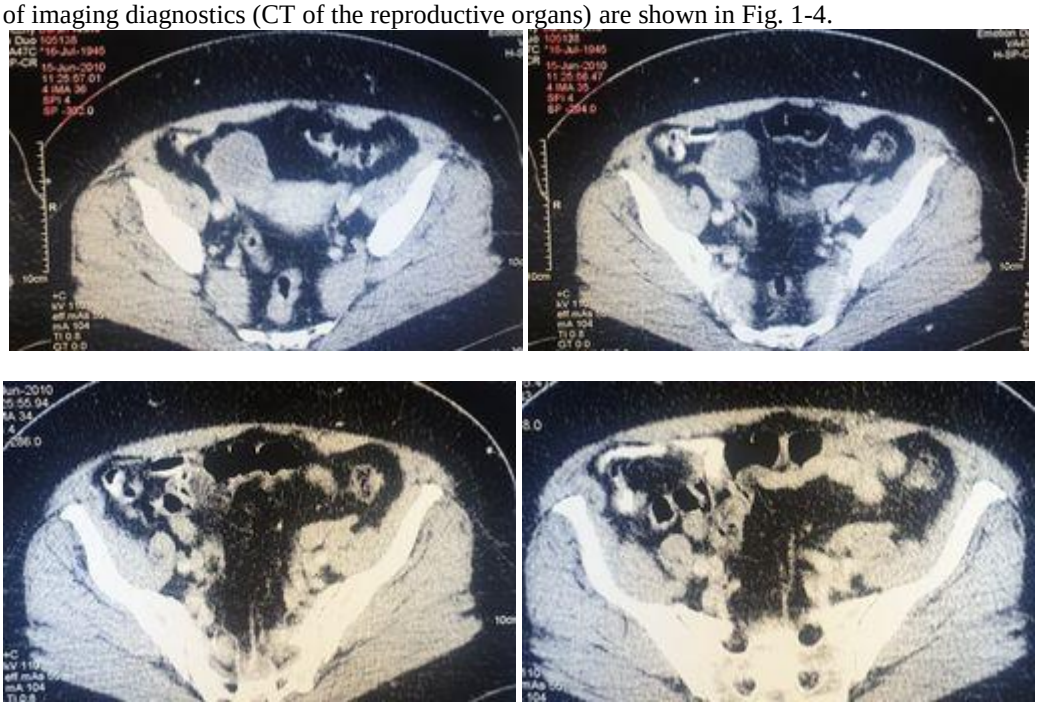
This tumor is rarely diagnosed preoperatively. Imaging diagnostic examinations (CT scans) can hardly detect it.[1] ATs most often present as a single, solid grey-white masses.[9] The diameter of ATs in the uterus and ovaries localized by Chinese authors ranged from 0.2 to 5.5 cm.[10] In the case of AT in the ovary coexisting with mature cystic teratoma (MCT), the mass was 0.8 x 0.8 x 0.7 cm.[11] Immunohistochemically, they usually test positively for pancytokeratin (AE1 / AE3), calretinin, and vimentin.[12]

Mature cystic teratoma is a germ cell tumor composed of well-differentiated froms evolving from at least two of the three layers of the ectoderm, mesoderm, and/or endoderm germ layers. MCT accounts for about 15% of ovarian cancers and is usually detected in young and middle-aged women.[13] It most often occurs unilaterally, but several tumor types can co-occur in one ovary. Bilateral occurrence is estimated at 10-15%.[14]

CASE PRESENTATION

A 64-year-old woman was referred to the Department with the diagnosis of right ovarian cyst, and got admitted on 9 June, 2010. On admission: Body weight 93 kg, BMI 35.00. She gave birth three times, natural deliveries, no history of miscarriage. Last menstrual period at the age of 52. Additional laboratory investigations, including Ca 125 and CEA, found no abnormal values. CT examination of abdominal organs was performed on 15 June, 2010. Right kidney: Horseshoe-like kidney, calcified deposits 11-, 13-, and 18-mm long on the right side, and 4- and 5-mm long on the left side. Cortical cysts were visible within the horseshoe kidney, the largest 39-mm in diameter, medially located. Left kidney: Postinflammatory infiltrates involving segments of the parenchyma. Liver, spleen, and pancreas intact. Gall bladder without calcified deposits. Extrahepatic and intrahepatic bile ducts nondilated. Projection of the right ovary revealed a hypodense lesion 43 x 44 mm, not amplified after the injection of contrast agent, with a liquid content – probably a cyst whose wall was not thicker than 4 mm. The posterior borders of the cyst smooth. Visible paraaortic lymph nodes, up to 7 mm in the short axis.

The results of imaging diagnostics (CT of the reproductive organs) are shown in Fig. 1-4.



Laparoscopy was performed on 17 June, 2010. Intraoperative findings: The endometrium of normal size, movable anteflexion. Left adnexa intact. Right ovary enlarged of 5.0 x 4.0 x 4.5 cm, present a smooth-walled cyst of 4.0 cm in diameter. Right oviduct intact. Inspection of the remaining abdominal organs showed no abnormalities. The right appendages and the cyst were removed. The intraoperative histopathological examination confirmed a benign dermoid cyst. Considering the intraoperative examination findings, it was decided to limit the surgery to right-sided adnexectomy. The patient was discharged from the ward on the second day after the surgery.

Histopathological findings: (1) Fragments of thin-walled cyst with a small grayish solid nodule, 6 mm in diameter. Diagnosis: *Adenomatoid tumor ovarii*. (2) Sebaceous masses and oviduct fragments. Diagnosis: *Cystis dermoidalis oviductus*.

No other complications related to the surgical treatment of the disease have been reported so far.

DISCUSSION

In the review of a 22-year material of the Department, germinal tumors were reported in 416 cases, most of them (410) were benign tumors - dermoid cysts (*teratoma maturum*).

Bilateral occurrence of MCT was reported in the literature at 10-15%. In the presented material it was recorded in 8.2%. Six cases transformed into MCT malignancies and tumors derived from germ cells.

One case of histologically different benign tumors, MCT and AT coexisting in the same ovary accounts for 0.24% out of 410 benign germ cell tumors. On the other hand, one case of coexisting MCT with AT in the right ovary referred to unilateral (379) and right-sided (190) cysts accounted for 0.26 and 0.53% respectively.

During the same period, thirteen AT cases were reported. The average age of patients was 51.9 years (range 37 - 75 years). In the literature, reported cases most often concerned patients in the third and fourth decade of life.[12]

The majority of AT cases (11- 84.6%) were localized in the uterine body. In two cases (14.4%) they were detected in the left oviduct and in the presented case of its coexistence with MCT in the right ovary.

In the presented material there was no AT localized in the area of the uterus broad ligament, which was reported in the literature.

The review of literature shows that the presented report on the coexistence of AT with MCT in the ovary is the second case ever described.

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