

Spontaneous pregnancy after laparoscopic cystectomy

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Abstract

Most women will experience a cyst on the ovaries at least once, and most are painless, cause no symptoms, and are discovered during a routine pelvic exam. Large cysts that can cause symptomatology or infertility problems occur in about 8% among women of reproductive age. The current case report comes to show that laparoscopic surgery is the key for persistent organic tumors of the ovary, after a complete diagnostic of the cyst; not the expectant management or hormonal therapy, but laparoscopic cystectomy after transvaginal puncture and drainage of the fluid is minimal requiring as recovery timing, medical care period, low costs, and not the least, ovarian functionality, after suppressing ovulatory function.

Keywords: Cystectomy, pregnancy, ovarian cyst

Introduction

Abdominal cysts are sacs or lumps surrounded by a membrane, encapsulating fluid or semi-fluid material. While most cysts are benign, the presence of a mass may indicate an underlying disease; therefore, further investigations should be done. One of the most common abdominal cysts is the ovarian cyst, which is formed on the ovarian follicles [1]. In the last years, the number of diagnosed ovarian cysts has increased, once the regular physical examination has been completed by more complex investigations such as imaging technology and specific ovarian tumor markers. Nevertheless, the discovery of an ovarian mass may cause

anxiety for the patient, since future fertility is one of the major concerns in women of reproductive age.

Case report

A 28 year-old Romanian woman, with no history of pregnancy or gynecological pathology, presented in our clinic with pelvic pain irradiated in the left inferior member accentuated during sexual intercourse and physical activity. The patient also experienced pollakiuria, lumbar pain, low abdominal distension, bloating and perturbation of the intestinal transit and defecation, which debuted 6-8 months before, but became acute in the last weeks. A non-investigated 2 year primary infertility was also declared by the patient.

According to the anamnesis, menarche commenced at the age of 15 years, with subsequent irregular cycles and moderate dysmenorrhea. The patient's weight and height was 65 kg, 175 cm respectively. Deep

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abdominal palpation revealed sensitivity in the left flank, irradiating towards the hypogastric region and sigmoid colon. The bimanual vaginal examination showed a mobile retroverted uterus, with normal dimensions. On the left adnexal topography, a voluminous mass, with imprecise limits was observed. The tumor mass, whose appurtenance was established at the ovary, presented

tenderness. The endovaginal echography showed a highly deviated uterus towards the right side, although the dimensions and aspect were normal. The left ovary was enlarged in volume, presenting a well-defined mass, 11.3/11/10 mm, with thick membrane, clear content, without any proliferations or intracystic septa (Figures 1 and 2).

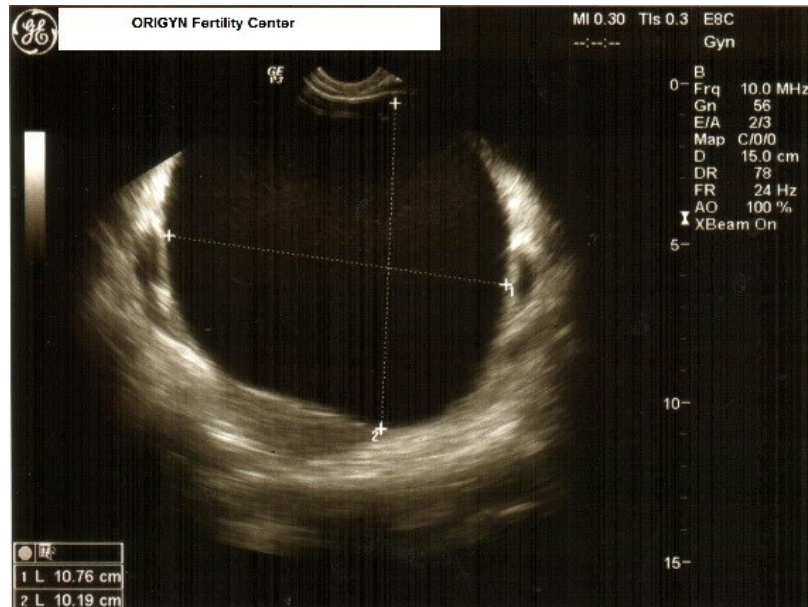


Fig. 1. Ultrasound image of anechoic cyst. No septa were observed; thin walls and a nodule without flow on Doppler was present on the posterior wall.

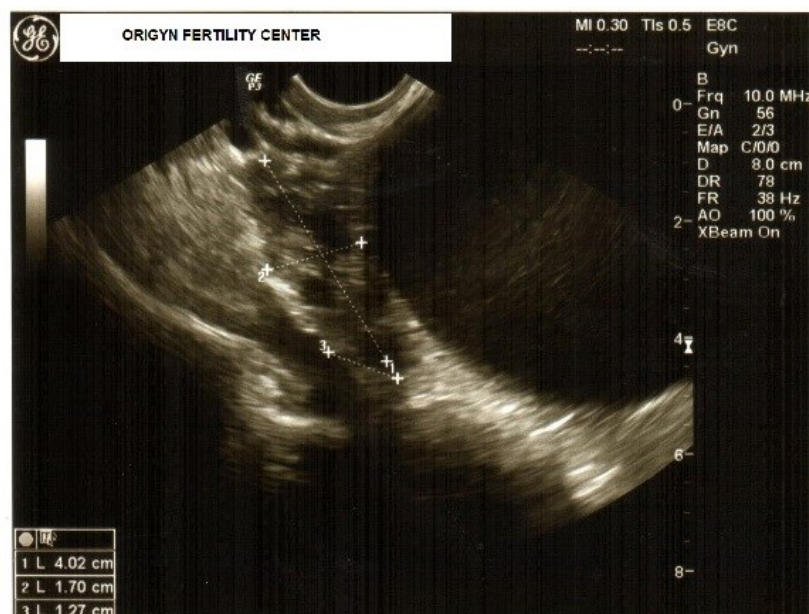


Fig. 2. Normal ultrasound of right ovary. A part of left ovarian mass, compressing the right adnexa and the uterus

The Doppler signal was low, and the resistance index was normal. The torsion of the annexes was excluded, moreover, no intracystic bleeding was observed. According to the biochemical exam, the markers of ovarian tumors risk were within normal limits: CA 125: 15.59 U / ml (normal value <35), CA 19-9: 4.8 U/ml (normal value <27) ACE: 0.497 ng/ml (normal value <4.3), results that are consisted with studies conducted by Outwater et al, 2001 [2].

The MRI evaluation confirmed the endovaginal ultrasonography results. Thus, an extremely voluminous cystic formation (134/116/110 mm) (cranio-caudal/ transversal/ AP), located in the pelvis and in the hypogastrium area was revealed. The well-defined formation presented hyper-intensity in T2 and T2 iso-signal with moderate restriction, inhomogeneous diffusion and a discreet outlet contrast at the level of the thin wall (2mm). The lesion, which originated in the left ovary, showed significant mass effect on the urinary bladder, uterus, right ovary, sigmoid colon and intestinal loops, as well as strong compression syndrome on the common and external iliac veins. In the upper pole of ovarian cyst

formation, a wide oval area of 30/10 mm, hyper-signaling in T1, T2, with diffusion restriction and nonspecific appearance was observed plated on the right anterolateral wall.

The uterus, which was shifted posteriorly, presented normal size and structure. The dimensions of the right ovary were normal, although few small follicular cysts were present. Based on the ultrasound report, MRI evaluation and biochemical markers we decided to evacuate the cystic fluid throughout a minimal invasive procedure.

The surgical protocol consisted in the transvaginal aspiration of the cyst (intracystic fluid), followed by laparoscopic abord using 3 trocars which were placed in the left and right iliac fossa, as well as, the umbilical area. Around 1.3 liters of fluid was evacuated by transvaginal puncture and aspiration, using echo-guidance. The shirt of the cyst was removed (cystectomy) and the normal, functional ovary was preserved (Figures 3 and 4). After the intervention, the patient was hospitalized for 3 days. It was established that the tumor mass was a mature cystic teratoma, which presented epidermal cells and thyroid tissue.

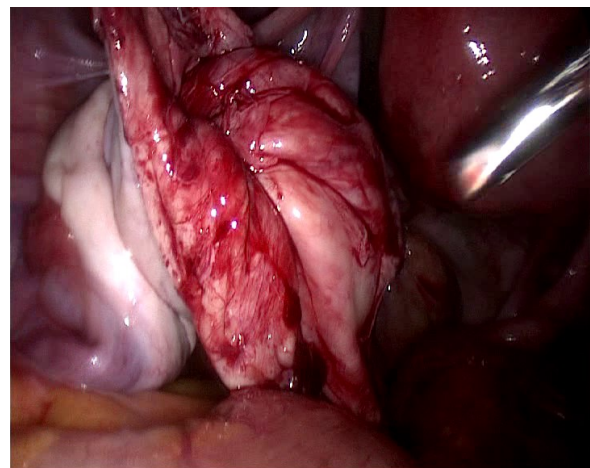


Fig. 3 and 4. Intraoperative images of the tumor.

The histological exam revealed smooth cystic walls, serous fluid and no vegetation inside. One month post-operative intervention, the patient presented with a positive pregnancy test, the single intrauterine gestational sac being confirmed by ultrasound scan (Figure 5).

The luteal corpus was observed on the left ovary, which was previously affected by the tumor. The pregnancy was carried out smoothly and was completed by the natural birth, at term, of healthy fetus, weighting 3.600 grams.



Fig. 5. Pregnancy confirmed by ultrasound

Discussion

Mature cystic teratoma (MCT), also called dermoid cyst, is the most common ovarian benign germ cell tumor in women of reproductive age (from teens to forties) [3]. Future fertility is one of the major concerns among these women. Therefore, the management of the tumor must focus on preserving ovarian tissue and minimizing adhesion formation. The particularity of this case resides in the fact that the left ovary whose ovulatory and gametogenic function has been inhibited by presence of the tumor mass, regained its activity in the first month after the laparoscopic removal of the cyst. This mechanism is similar to the one observed in PCOS patients [4], which were submitted to cuneiform resection of the ovary [5, 6].

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Conclusion

Laparoscopic cystectomy after transvaginal puncture and drainage of the fluid requires minimal recovery time, medical care period, low costs, and not the least, is an efficient method of preserving fertility in a certain number of patients.

Consent

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

Conflict of interests

The author(s) declare that they have no competing interests.

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