SPONTANEOUS PREGNANCY IN SUBSEQUENT CYCLE AFTER LAPAROSCOPIC CYSTECTOMY. CASE REPORT

Gabriela Simionescu\textsuperscript{1,3}, Sabina Neculai-Valeanu\textsuperscript{1}, E. Anton\textsuperscript{2,3}, B. Doroftei \textsuperscript{1,2,3}

1. Origyn Fertility Center
University of Medicine and Pharmacy “Grigore T. Popa”-Iasi
Faculty of Medicine
2. Department of Mother and Child Medicine
3. “Cuza-Vodă” Obstetrics and Gynecology Clinical Hospital, Iasi
*Corresponding author. E-mail: emil.anton@yahoo.com

SPONTANEOUS PREGNANCY IN SUBSEQUENT CYCLE AFTER LAPAROSCOPIC CYSTECTOMY. CASE REPORT (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.

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 under-laying disease therefore, further investigation 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 imagistic 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 years-old Romanian woman, normal conformation (65 kg body weight and 175 cm height), 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 polakiuria, lumbar pain, low abdominal distension, bloating and perturbation of the intestinal transit and defecation, starting 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. Deep abdominal palpation revealed sensitivity in the left flank, which was irradiating towards the hypo gastric 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 tumoral 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, 113 mm / 110 mm/100 mm, with thick membrane, clear content, without any proliferations or intracystic septae (fig.1, 2).

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

**Doppler signal** was reduced and the resistance index was normal. The adnexal torsion was excluded, additionally, no intracystic hemorrhage was observed. According to the biochemical exams, the ovarian tumor risk markers were in normal limits ranging: CA 125 15,59 U/ml (normal value < 35), CA 19-9: 4,8 U/ml (normal range < 27), CAE: 0,497 ng/ml (normal range < 4,3) results which are supported by (2).

**The MRI evaluation** revealed an extremely voluminous cystic formation (134 mm / 116 mm / 110 mm) (cranio-caudal/ transversal / AP) located in the pelvis and in the hypogastrium area. At MR imaging, 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 (2 mm). 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. Thereby, 1.3 liters of fluid were evacuated by transvaginal puncture and aspiration, using echo-guidance (fig. 3, 4).

Fig. 1. Intraoperatorary image of the tumor

The histological exam revealed smooth cystic walls, serous fluid and no vegetation inside. After the evacuation of the fluid, the cystic membrane was removed by laparoscopic excision. It was established that the tumor mass was a mature cystic teratoma, which presented epidermal cells and thyroid tissue. One-month post-operatory intervention, the patient presented with a positive pregnancy test, the single intrauterine gestational sac being confirmed by ultrasound scan. The luteal corpus was observed on the left ovary, which was previously affected by the tumor.

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 gametogenesis function has been inhibited by presence of the tumoral mass, regained its activity in the first month after the laparoscopic removal of the cyst. Conform to literature data regarding the surgical treatment of Stein-Leventhal syndrome, this mechanism is similar to the one observed in PCOS patients, which were submitted to cuneiform resection of the ovary.

Laparoscopic management offers many advantages for the patient: accurate diagnosis, minimal bleeding, reduced need for analgesia, less adhesion formation, fast recovery, better cosmetic results, shorter hospital stays (one-day surgery in selected cases), and reduced costs for the patient and hospital (4-7).

CONCLUSIONS

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.

REFERENCES


**NEWS**

CHRONIC ORAL MG LOWERS ARTERIAL PRESSURE INCREASED BY CHRONIC INHIBITION OF NITRIC OXIDE SYNTHASE (NOS)

Male rats received N-nitro-l-arginine methyl ester (l-NAME, 25 mg/kg/day in drinking water) for 6 weeks, alone or together with magnesium-oxide (0.8% in diet). Systolic arterial blood pressure (ABP) was measured weekly (tail-cuff). Constriction and relaxation was studied in rings isolated from thoracic aorta and third order mesenteric artery. Gradual hypertension induced by l-NAME was attenuated after five weeks of oral Mg. Chronic l-NAME increased phenylephrine induced constriction and decreased acetylcholine (ACh) induced dilation, both restored by Mg. Nitric oxide (NO) contribution to ACh relaxation of mesenteric arteries was suppressed by l-NAME, corrected by Mg. Flow-mediated dilation (FMD) of mesenteric arteries was blunted by chronic l-NAME; not corrected by chronic Mg. Vascular eNOS and Mg were not changed but plasma nitrite was reduced in hypertensive rats. Restoring arterial relaxation, chronic Mg decreases ABP increased by chronic l-NAME. (Basralı F, Koçer G, Ülker Karadamar P et al. Effect of magnesium supplementation on blood pressure and vascular reactivity in nitric oxide synthase inhibition-induced hypertension model. Clin Exp Hypertens 2016; 37(8): 633-642.)

Mihai Constantin