



OLGU SUNUMU/CASE REPORT

A young woman with a huge paratubal cyst

Dev paratubal kisti olan bir genç kadın

Ceren Gölbaşı¹, Cüneyt Eftal Taner¹, Atalay Ekin¹, Ezgi Hürcan¹, İlknur Gümüş¹,
Dudu Solakoğlu Kahraman²

¹Tepecik Training and Research Hospital, Department of Obstetrics and Gynecology, ²Department of Pathology, Izmir, Turkey

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Abstract

Paratubal cysts are asymptomatic embryological remnants. These cysts are usually diagnosed during adolescence and reproductive age. In general, their sizes are small but can be complicated by rupture, torsion, or hemorrhage. Paratubal cysts are often discovered fortuitously on routine ultrasound examination. We report a 19-year-old female patient who presented with irregular menses and abdominal pain. Ultrasound examination revealed a huge cystic mass at the right adnexial area. The diagnosis was confirmed as paratubal cyst during laparotomy and, hence, cystectomy and right salpingectomy were performed.

Key words: laparotomy, paratubal cyst, ultrasonography

Öz

Paratubal kistler asemptomatik embriyolojik kalıntılardır. Bu kistler çoğunlukla adolesan ve reproduktif dönemde tanı alırlar. Genellikle, boyutları küçüktür fakat rüptür, torsiyon ya da hemoraji gibi komplikasyonlar gelişebilmektedir. Paraovaryan kistler çoğunlukla ultrason incelemesinde tesadüfen saptanırlar. Bu vakamızda 19 yaşında düzensiz menstruasyon ve abdominal ağrı ile başvuran bir hastayı sunuyoruz. Ultrason incelemesiyle sağ adneksiye alanında dev bir kistik kitle gösterildi. Laparotomi sırasında paraovaryan kist tanısı konuldu ve bu nedenle kistektomi ve sağ salpenjektomi uygulandı.

Anahtar kelimeler: laparotomi, paratubal kist, ultrasonografi

INTRODUCTION

Paratubal cysts constitute 10–20% of all adnexal masses and occur in the broad ligament between the ovary and the tube. They arise from paramesonephric, mesothelial, or mesonephric remnants. Although paratubal cysts have been reported in all female age groups, they are most commonly seen in women around the ages of 20-40 years old. These are easily recognizable cystic structures with smooth thin walls and clear fluid. Preoperative differential diagnosis is difficult because of the proximity of the ovary. Paratubal cysts are usually small and asymptomatic. However, larger lesions may reach 20 or more cm in diameter and become symptomatic due to complications such as torsion, hemorrhage, perforation and neoplasm¹. The majority of these cysts are benign, though borderline tumors and carcinomas have also been reported.

Smaller lesions can be followed expectantly. Larger lesions, lesions that are symptomatic, and with sonographically suspicious findings (septation, papillations, fluid and solid components) are generally surgically explored. The classic treatment is enucleation of the cyst from the mesosalpinx without damaging the ovary and fallopian tubes². However, salpingo-oophorectomy may be needed in rarely complicated cases^{3,4}. In this report, we present the management of a case with an abnormally huge paratubal cyst.

CASE

Our patient was a 19-year old, healthy and virgin female. Her menses were irregular and main complaints were abdominal pain, constipation and discomfort for the last 8 months. She reported a weight gain of 8 kilograms in last 3 months. Transabdominal ultrasound revealed a cystic mass

Yazışma Adresi/Address for Correspondence: Dr. Ceren Gölbaşı, Department of Obstetrics and Gynecology, Tepecik Training and Research Hospital, İzmir, Turkey, E-mail: crn_bsl@hotmail.com
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filling the abdominal cavity from the bladder to epigastrium.

The diaphragm was observed to be pushed upward through the thorax by the cyst. There were few septations in the thin walled cystic mass without solid nodular areas. The cyst was not echogenic and thought to be of right ovarian origin. Values of hematologic parameters including tumor markers were measured within normal limits before laparotomy. During exploratory laparotomy, the uterus, left fallopian tube and ovary had normal appearances. The laparotomy revealed a cystic mass



Figure 1. Intraoperative view on gross inspection of the cystic mass

with quite thin walls, approximately 50x40x35 cm in size that was full of serous fluid and extended along the right fallopian tube to the right ovary (Figure 1).

The right fallopian tube was densely adhered to the cyst. Right cystectomy and salpingectomy were performed without damaging right ovary. The cystic mass was interpreted as a benign lesion on frozen section. She was discharged from the hospital on the third post-operative day with a weight loss of 6 kg. The final pathological examination confirmed the diagnosis of serous cystadenoma of paratubal origin (Figure 2).

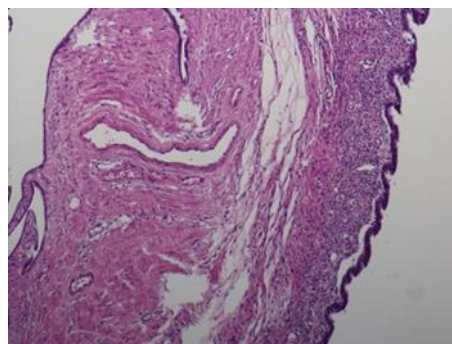


Figure 2. Paratubal cyst is lined by a single row of ciliated low columnar cells and a surrounding fibrous tissue (H&E x 100).

DISCUSSION

A paratubal cyst is a closed, fluid-filled sac that grows unilaterally in the broad ligament between the uterus and the ovary. Since the tubes and broad ligaments are not usually visualized on ultrasound examination, the source of these tumors may be erroneously attributed to the ovaries, which are more common sites for neoplasms. Characteristic ultrasound findings such as unilateral cystic mass coated with non-stroma may help in the differentiation of paratubal cyst. Similarly, the mass in this patient had a thin wall and septations without any solid nodular areas. Paratubal cysts are presumed to be originated from the remnants of paramesonephric (mullerian) or mesonephric (wolffian) ducts that are present during urogenital embryologic development^{5,6}.

They may also be originated from mesothelium. Paramesonephric cysts, in particular, the hydatid cyst of Morgagni are most common^{7,8}. Generally, a

hydatid cyst of Morgagni is attached to the tubal fimbria and contains serous fluid surrounded by a translucent wall. Our case was diagnosed as serous cystadenoma which was in the epithelial and paramesonephric group.

Paratubal cysts constitute about 10% of all adnexial masses⁹. Although they are not uncommon, they rarely cause symptoms and are usually incidentally found. Therefore, their actual incidence is not exactly known. When paratubal cysts are symptomatic, they most commonly present as dull unilateral pelvic pain⁶. The symptoms occur when they grow excessively, or in case of hemorrhage, rupture or torsion. Paratubal cysts are often connected to the mesosalpinx with a stalk, around which torsion may occur^{10,11}. The incidence of torsion of a paratubal cyst is uncertain, but should be suspected in a patient with acute or intermittent pelvic pain. In most cases, the diagnosis of torsion can be made only with surgical evaluation. Malignant neoplasms may occasionally develop in

paratubal cysts. In a retrospective study of 59 women who underwent surgery for cystic paratubal lesions, 75% had simple cysts and 25% had neoplastic lesions (seven cystadenomas and eight cystadenofibromas)¹². In contrast, a literature review found 14 reports of malignant or borderline paratubal epithelial tumors¹³. There are no data regarding whether these cysts, either benign or malignant, are more common in pre- or postmenopausal women. The dimension of the paratubal cysts varies between 2 to 20 cm but most of the cases fall in the range between 6-10 cm¹². Voluminous paratubal cysts were reported previously in the literature¹⁴⁻¹⁸. In our case, the length of the cyst was measured as 50 cm and main complaints were menstrual irregularity, abdominal discomfort, constipation and weight gain.

Treatment options for paratubal cysts can be chosen according to the patient's age, parity, existing gynecological pathologies and neoplastic degeneration. In women with cysts that appear simple on ultrasound and are <10 cm in diameter, no intervention or continuing surveillance is needed. Women with complex paratubal cysts should be managed in the same manner as women with complex ovarian cysts. Surgical management of paratubal cyst is simple excision or cystectomy. Giant paratubal cysts are unusual masses and should be treated by laparotomy. The safety of laparoscopic management of paratubal cyst has been demonstrated, but it is believed that the size of paratubal cyst could be a limiting factor for laparoscopic surgery¹⁶.

One can decide to aspirate the cyst and then perform laparotomy but intraperitoneal spillage of cyst components may develop as a potential complication of paracentesis. This could result in tumor seeding of the peritoneal cavity or paracentesis tract if the cyst is malignant. Other complications associated with repeated paracentesis include infection, bleeding, and an increase in the number and density of peritoneal adhesions, making eventual cyst removal even more difficult¹⁷. In this case, we preferred laparotomy instead of laparoscopy due to huge size of the cyst and were able to remove the paratubal cyst without damaging the neighboring fallopian tube.

In conclusion, paratubal cyst should be considered in the differential diagnosis of huge cystic masses that do not have ultrasonographic malignancy criteria. Ovary-preserving cyst excision is adequate

for treatment in uncomplicated cases but salpingo-oophorectomy is the treatment of choice for complicated cases with circulatory disturbance or torsion or cysts that are suspicious of malignancy.

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