

Giant paratubal cyst: report of a case in second level public hospital

Quiste paratubárico gigante: reporte de un caso en un hospital público de segundo nivel

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Abstract

Background: Giant paratubal cysts are mostly benign tumors, with an incidence of 10%. The incidence rate of neoplasms is 2% to 3%, including papillary carcinoma and serous papillary neoplasms. **Case report:** A 35-year-old woman who began her current condition 3 years after her pregnancy, with urgency when urinating, abdominal pain and sensation of abdominal mass, who was diagnosed and protocolized in a second public level hospital of the State of Mexico, treated with open surgery, and good postoperative evolution.

Keywords: Giant paratubal cysts. Abdominal pain. Abdominal mass.

Resumen

Antecedentes: Los quistes paratubáricos gigantes son en su mayoría tumores benignos, con una incidencia del 10%. La tasa de incidencia de neoplasias es del 2 al 3%, incluyendo carcinoma papilar y neoplasias papilares serosas. **Caso clínico:** Mujer de 35 años que comenzó su condición actual 3 años después de un embarazo, con urgencia al orinar, dolor abdominal y sensación de masa abdominal, que fue diagnosticada y protocolizada en un hospital público de segundo nivel del Estado de México, tratada con cirugía abierta y con buena evolución posoperatoria.

Palabras clave: Quistes paratubáricos gigantes. Dolor abdominal. Masa abdominal.

Introduction

Giant paratubal cysts are mostly benign tumors. Their incidence rate is nearly 10%, while that of neoplasms is 2% to 3%, including papillary carcinoma and serous papillary neoplasms. They often measure between 1 cm and 8 cm. Giant cysts are extremely rare, and their preoperative diagnosis is complicated. They are often found in the broad ligament of the uterus, between the ovary and the fallopian tube, have a slow

and progressive course, and are the result of embryonic remnants.^{1,2}

The course of the disease starts with abdominal pain, or an increased size of the lower abdomen, complicating in approximately 3% of the cases. Based on their histology these lesions can be categorized as serous or simple cysts, and based on their embryonic origin as mesothelial (68%), mullerian (30%), and wolffian cysts (2%). They are most often diagnosed between the ages of 30 and 40.^{2,3}

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Diagnosis is achieved via transabdominal or transvaginal ultrasound, abdominal-pelvic computed tomography (CT), and magnetic resonance imaging. Complications include rapid growth, bleeding, perforation, along with hemoperitoneum, and torsion. Differential diagnosis includes appendicitis, hydrosalpinx, incarcerated hernia, ectopic pregnancy, mesenteric cyst, and abdominal lymphangioma.

Case report

This is the case of a 35-year-old woman with an 8-year diagnosis of hypothyroidism treated with levothyroxine, along with pituitary adenoma treated with a 5-year course of cabergoline. She was allergic to contrast medium and indomethacin. Her current condition started 3 years ago during pregnancy after a diagnosis of a right adnexal cyst. Four months ago, she started experiencing urgency in urination, abdominal pain, and a feeling of an abdominal mass. Physical examination: Glasgow score of 15, distended abdomen, normal peristalsis, and presence of a well-demarcated painful abdominal mass on the right flank upon palpation. Lab test results: white blood cell count, 7 k/ μ L; hemoglobin, 14 g/dL; platelets, 328.0 k/ μ L; creatinine levels, 0.6 mg/dL; sodium levels, 140 mmol/L; potassium levels, 3.9 mmol/L; non-pathological urinalysis. The plain CT scan (Figs. 1 and 2) revealed the presence of a hypodense lesion with thin septa occupying the pelvic and abdominal cavity depending on the correct fixation in relation to serous cystadenoma, compressing the bladder and displacing adjacent structures.

Based on the physical examination and CT findings suggested a probably malignant serous cystadenoma component, and with the resources available of a second-level hospital, open surgery was chosen, and exploratory laparotomy with right salpingo-oophorectomy was performed (Figs. 3 and 4), with a 50 cc bleeding during the procedure, without complications. The patient was kept under observation, started on a diet after 8 hours, and was discharged uneventfully 24 hours after the procedure.

The histopathological study revealed the presence of a 17 cm $\times$ 17 cm $\times$ 3 cm cystic tissue of a smooth bright light brown outer surface and transparent fluid inside; the inner surface of the capsule was also light brown, and of a soft, smooth, and vascularized consistency; the cyst inner wall contained stroma lined with cylindrical epithelial cells, without excrescences, or pleomorphism; no malignant neoplastic cells were



Figure 1. Computed tomography image of abdomen and pelvis showing a large 10 cm $\times$ 14 cm cyst occupying the abdominal cavity.



Figure 2. Computed tomography image of abdomen and pelvis showing a cystic mass with thin-walled well-demarcated borders.

found in the sample under study. The diagnosis of a simple right parasalpinx cyst was established.

Discussion

Adnexal tumors are one of the most common causes of gynecological surgery. A total of 75% are found in the ovary, 10% to 17% in the fallopian tubes, and only 5% to 10% are paratubal. They can be benign or malignant.¹ Depending on their embryonic origin,

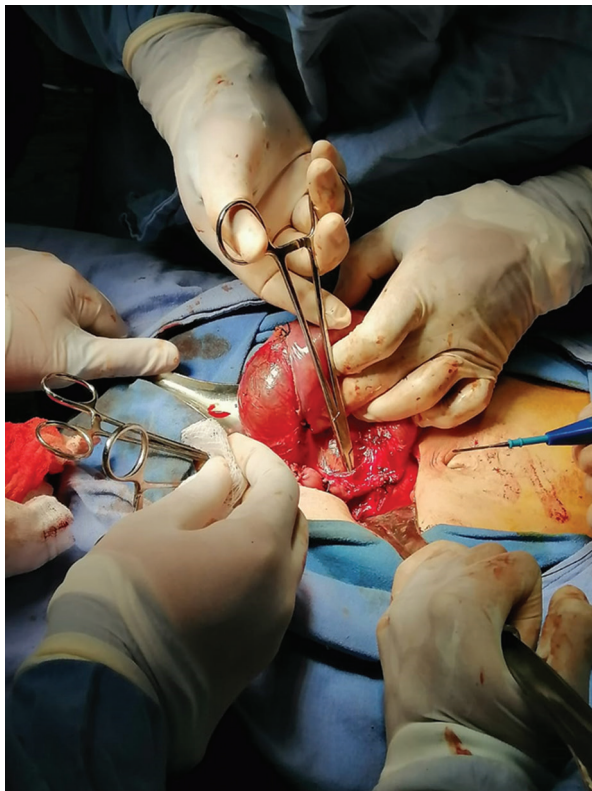


Figure 3. Resection of the cystic mass.

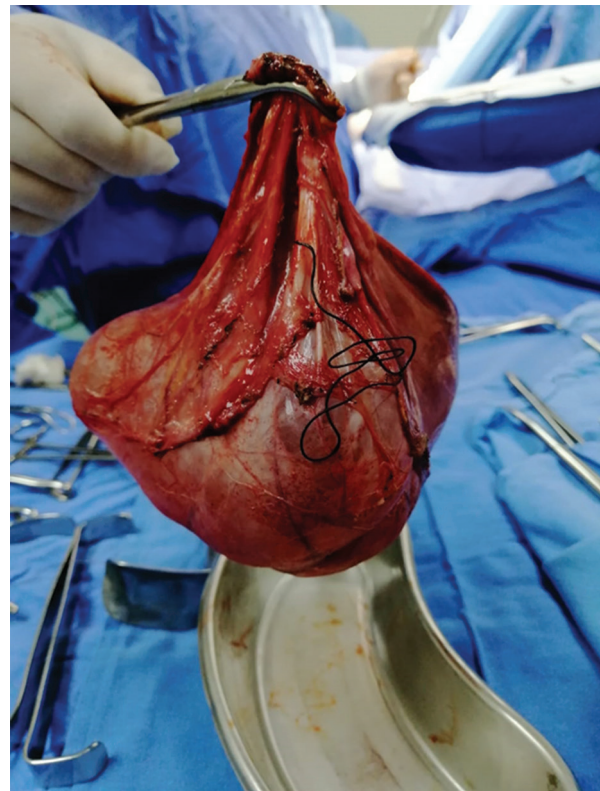


Figure 4. Postoperative appearance of the giant cyst.

they can be mesothelial (68%), mullerian or paramesonephric (30%), or wolffian or mesonephric cyst (2%). Only a few cases of giant tumors have been reported.

Cystadenomas are benign tumors (80%), often small, simple cysts located in the ligament, appearing more often in fertile women.³ Clinical signs result from cyst growth (abdominal swelling and pain), torsion, bleeding, infection, or cyst perforation, causing acute abdominal pain.^{4,5} Diagnosis requires physical examination and imaging modalities (ultrasound, CT, and others). Ultrasound is the first study often performed, while the CT scan defines the size.^{6,7} Surgical removal of such neoplasms is always necessary, regardless of size, due to possible complications, such as the risk of ectopic pregnancy or tubal torsion, and emergency surgery should be performed too. The current treatment of choice is to remove the cysts laparoscopically, as it has been reported to be associated with a lower morbidity rate, lower risk of adhesions, reduced postoperative pain, and better cosmetic results.⁸ However, when suspected malignancy is low, or in the presence of a mixed component and suspected malignancy, laparoscopic techniques are ill-advised, and an open

approach should be used without delaying diagnosis, or treatment.^{1,5}

Conclusions

The incidence rate of giant paratubal cysts is 10%, with a risk of malignancy close to 2.9%. The clinical picture is characterized by abdominal pain and a sensation of a mass. Since paraclinical studies do not confirm the diagnosis, a postoperative and histopathological diagnosis is necessary. In this case report, an open surgical procedure was still a feasible therapeutic option when a malignancy is suspected, or when the resources available are scarce, thus avoiding treatment delays, with proper postoperative recovery, no complications, and a short length of stay.

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Conflicts of interest

None declared.

Ethical disclosures

Protection of human and animal subjects. The authors declare that no experiments were performed on humans or animals for this study.

Confidentiality of data. The authors declare that they have followed the protocols of their work center on the publication of patient data.

Right to privacy and informed consent. The authors have obtained the written informed consent of the patients or subjects mentioned in the article. The corresponding author is in possession of this document.

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