## Chapter 120

# Challenge in the treatment of anexal mass in pregnancy: a case report

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## **1 INTRODUCTION**

The term "uterine attachment" refers to structures anatomically close to the uterus, including fallopian tubes, ovaries, adjacent vessels, ligaments and connective tissues <sup>(3)</sup>. Therefore, when there is the appearance of an anexal mass, it is certainly related to tumor originating from the uterine attachments. That said, it is worth remembering that during pregnancy, these tumors are uncommon, presenting a variation in the incidence of only 1 to 10% of the pregnant <sup>population (2)</sup> and most of these anexal masses are functional ovarian cysts that usually disappear during pregnancy, preserving at only 0.7% 1.7% of cases. <sup>(13)</sup> From this perspective, the present study has the objective of reporting a rare case of pregnant women with anexal mass, being in the right ovary that evolved to an atypical torsional picture and then reviewing information about the subject, focusing on the challenge of surgical treatment.

### **2 METHODOLOGY**

Retrospective and descriptive study of data contained in the medical records of patients hospitalized by the General Surgery and Gynecology and Obstetrics teams of a philanthropic hospital in Mato Grosso. The information extracted from the medical records was: Clinical history, diagnostic methods and the

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established forms of treatment. In addition, photographic records of imaging examinations and bibliographic review on the subject were performed.

## **3 CASE REPORT**

A female patient, at the age of 18 years, previously healthy, primiparous, denies family history of neoplasms, denies alcohol or smoking, denies previous surgeries, using ferrous sulfate and folic acid, was admitted to a philanthropic hospital in Mato Grosso, a reference in obstetrics, with the narrative that after about 4 months of gestation he developed the colic pain, in a region of the right iliac fossa, of moderate intensity, which attenuated the use of analgesics, but without worsening factors and without any other systemic symptoms.

Because of the situation, realizaram a an ultrasso obstetric nography at 18 weeks, which showed the fetus in longitudinal situation, pelvic presentation, fetal movements and respiratory movements present, with 153 rhythmic fetal heartbeats, and in addition, one the anexal mass of 8.2 cm in right ovary and without other findings.



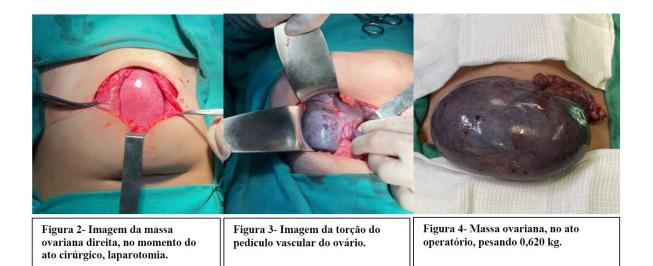
Figura 1- Imagem do ultrassom, em gestação sem intercorrências, evidenciando ovário direito aumentado de volume, com textura sólida, homogênea, medindo 8,2x4,8x6,1, vol 108,0 cm.

The patient was then hospitalized, remained hemodynamically stable during this period, and pelvic examination showed uterine size compatible with gestational age, with no other noticeable essential changes, except for maintaining mild pain at deep palpation in the right iliac fossa region. After one day in the nosocommium, it was decided by the interconsultation with the general surgery team, which, after another day observation and progression of pain concomitant ly with the use of stronger analgesics, opted for the surgical laparotomy of the pelvic region, since laboratory tests performed on admission showed no alterations, also ensuring aptidão for surgical approach. It is noteworthy that the values of AEC, CA-125 and alpha-fetoprotein were within the normal range.

The surgery was not performed on the agreed day, due to other emergencies of the hospital service, and surgical treatment was postponed to the next morning. On the day of surgery, the patient underwent epidural block, pfannenstiel incision without intercurrence. In the cavity inventory, the presence of enlarged uterus was evidenced due to pregnancy, a small amount of citrine-staining ascytic fluid, right ovarian mass

with signs of significant hypoflow, por account of a torsion in two turns of the vascular pedicle of the ovary, however no signs of necrosis or rupture.

The face of the above was opted for oophorectomy associated with right unilateral salpingectomy and the absence of carcinomatous implants in the abdominal cavity was observed. Finally, the mass presented a weight of 0.620kg and proceeded to the pathological anatomoalong with peritoneal washing collected for onoptic cytology.



The patient progresses well in the postoperative period, remained clinically stable, with pregnancy without other complications and the surgical wound always in good appearance. After more than 36 hours after surgery and maintaining good evolution, the pregnant woman was discharged from the hospital with general guidelines and m follow-up with the gynecology and obstetrics and general surgery teams. The pathological outcome found that the right ovary presented low-grade neoplasia with mesenchymal or stromal characteristics, and as possible diagnoses of ovarian myxoma or tecoma. Oncotic cytology did not show neoplastic cells, requiring the execution of an immunohistochemistry that confirmed right ovary tecoma.

## **4 DISCUSSION**

Although rare, notas far as the anexial mass is concerned, the most frequent findings are: functional ovarian cysts, benign cystic teratomas, serous cystadenomas, hemorrhagic cysts, specific ovarian changes in pregnancy, and endometriomas. <sup>(8)</sup> The pathological study of the case in question showed two possible diagnoses with: ovarian myxoma or tecoma, and also showed a intact cystic capsule presenting in its largest diameter 14.5 cm, considered large. It was necessary to perform immunoistochemistry, which in turn came confirming the tecoma of the ovary.

At this angle, conform data from the literature, masses measuring from 8-12 cm are associated with a higher risk of ovarian torsion, similar to the case report. <sup>(5)</sup> It is known that ovarian tumors account for approximately 50% to 90% of torsion cases in adult patients. Similarly, pregnancy with gestation time of up to 20 weeks (specifically between 10 and 12 weeks) also determines a higher incidence of ovarian torsion, probably due to the fact that the enlarged uterus pushes the ovary. <sup>(5)</sup>

Nevertheless, in the present case there is the observation that during prenatal care, around 18<sup>0</sup> weeks, the pregnant woman started a progressive abdominal pain from mild to strong intensity, which generates the greatest difficulty: the General Surgery team chooses the option of surgical treatment more urgently, since it is based on an atypical picture of pain by ovarian torsion, perhaps masked by the analgesic, which is usually represented by an acute abdomen, with intense and sudden pain. <sup>(14)</sup> On the other hand, however, and in agreement with the studies, the symptoms that are persistent are closely related to the size and volume of the tumor, causing mild to moderate pain <sup>(9)</sup>, abdominal distension and palpable masses in the abdomen or pelvis. <sup>(6)</sup> Therefore, the absence of improvement in the picture was crucial in earlier decision-making.

It is a fact that most of the masses resolve until the second trimester of pregnancy <sup>(10)</sup> and it is the best time for surgical intervention, because the risk of miscarriage is lower. <sup>(14)</sup> However, it is essential that ultrasound of pelvic masses be performed, since it represents the first line in propaedeutics <sup>(1)</sup>, and it is possible to identify the risk of events such as: rupture, torsion, obstruction of labor or malignancy, assisting in the decision between adopting conservative approach, requiring complementary diagnostic procedures or performing surgical interventions <sup>(8)</sup> identification of gestational age. It is also certain that the risk of malignancy of an anexal mass does not exceed 1% of the diagnosed cases, and the report is reported according to the literature.

The choice of treatment is always of paramount importance, and is the main obstacle of the case itself due to borderline changes in the patient and tumor. Surgical preference should include the analysis of factors such as gestational age, acute symptoms such as pain, hemorrhagic rupture or torsion, large masses (greater than 8 cm), of a complex nature, which persist after 16 weeks of gestation or are associated with the presence of extra-ovarian disease, <sup>(15)</sup> in addition to the desire for future pregnancy, among others. Regarding the technical challenge, itis not possible to use laparoscopy. <sup>(12)</sup> On the contrary, in case of large-volume ovarian mass associated with the enlarged uterus, laparotomy is more effective, with salpingectomy and/or oophorectomy <sup>(4)</sup>, as in the case reported.

## **5 CONCLUSION**

This study described the rare case of a pregnant woman, primiparous, without pathological history or positive family history for malignancy, presenting anexal mass in the right ovary, which was revealed twisted without major acute clinical manifestations, but which by persistence unfolded in surgical approach by laparotomy, being attended in a philanthropic hospital, under follow-up with the teams of general surgery and gynecology and obstetrics, this fact, which influenced notthe best treatment and allowed the continuity of pregnancy, without complications.

Keywords: Anexal mass, ovarian torsion, pregnancy.

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