Chapter 27

Challenges in the treatment of adnexal mass in pregnancy: A case report

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1 INTRODUCTION

The term "uterine annex" refers to structures anatomically close to the uterus, including fallopian tubes, ovaries, adjacent vessels, ligaments and connective tissues[3] . Therefore, when there is the appearance of an adnexal mass, it is certainly related to tumor originating from the uterine appendages. That said, it is worth remembering that during pregnancy, these tumors are uncommon, with a variation in incidence of only 1 to 10% of the pregnant population[2] and most of these adnexal masses are functional ovarian cysts that usually disappear during pregnancy, being preserved in only 0.7% to 1.7% of cases. [13] Sob esse prisma, o presente trabalho possui o objetivo de relatar um caso raro de gestante com massa anexial, sendo em ovário direito que evoluiu a um quadro atípico de torção e depois revisar informações acerca do tema, focando no desafio do tratamento cirúrgico.

2 METHODOLOGY

Retrospective and descriptive study, of data contained in the medical records of patients admitted by the General Surgery and Gynecology and Obstetrics teams of a philanthropic hospital in Mato Grosso. The information extracted from the medical records were: clinical history, diagnostic methods and the established forms of treatment. In addition, photographic records of the imaging exams and bibliographic review on the theme were performed.

3 CASE REPORT

Female patient, aged 18 years, previously healthy, primigravida, denies family history of neoplasms, no alcoholism or smoking, no previous surgeries, taking ferrous sulfate and folic acid, was admitted to a philanthropic hospital in Mato Grosso, reference in obstetrics, After about 4 months of pregnancy, she developed colicky pain in the right iliac fossa, of moderate intensity, which subsided with the use of analgesics, but without worsening factors and without any other systemic symptoms.

Because of the situation, they performed an Obstetric Ultrasound at 18 weeks, which showed the fetus in a longitudinal situation, pelvic presentation, fetal movements and breathing movements present, with 153 rhythmic fetal heartbeats, and in addition, an 8.2 cm adnexal mass in the right ovary and no other findings.

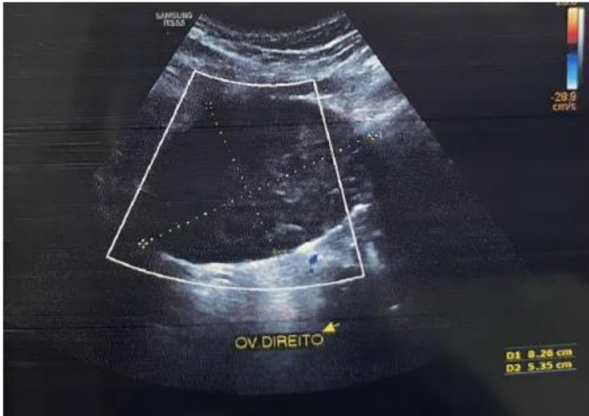

Figura 1- Imagem do ultrassom, em gestação sem intercorrências, evidenciando ovário direito aumentado de volume, com textura sólida, homogênea, medindo 8,2x4,8x6,1, vol 108,0 cm.

The patient was then hospitalized, remained hemodynamically stable during this period, and the pelvic exam showed uterus size compatible with gestational age, without other noticeable essential changes, except for maintaining mild pain on deep palpation in the right iliac fossa region. After one day in the hospital, it was decided to perform an interconsultation with the general surgery team, which, after one more day of observation and progression of pain concomitant with the use of stronger analgesics, opted for exploratory laparotomy of the pelvic region, since the laboratory tests performed at admission showed no changes, also ensuring suitability for surgical approach. It is worth mentioning that the CEA, CA-125 and alpha-fetoprotein values were within normal limits.

It was not possible to perform the surgery on the agreed day due to other emergencies in the hospital service, and the surgical treatment was postponed to the next morning. On the day of the surgery, the patient underwent an epidural block and a Pfannenstiel incision with no intercurrence. The cavity inventory revealed the presence of an enlarged uterus due to pregnancy, a small amount of citrine-colored ascitic fluid, a right ovary mass with signs of significant hypoflow, due to a torsion in two turns of the vascular pedicle of the ovary, however without signs of necrosis or rupture.

As a result, we opted for oophorectomy associated with right unilateral salpingectomy and verified the absence of carcinomatous implants in the abdominal cavity. Finally, the mass weighed 0.620 kg and was sent to pathology along with the peritoneal lavage collected for oncotic cytology.

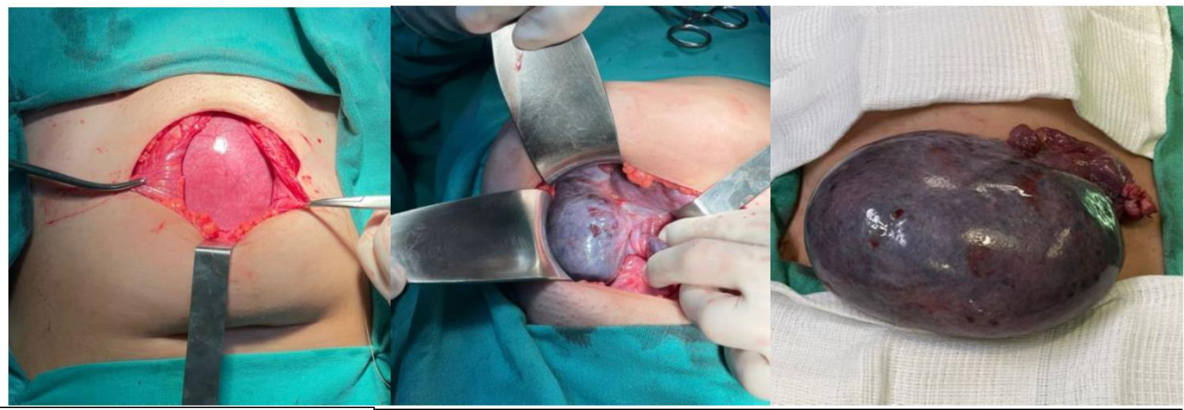

Figure 2 - Image of the right ovarian mass at the time of surgery, laparotomy	Figure 3 - Image of torsion of the vascular pedicle of the ovary	Figure 4 - Ovarian mass, at the surgical act, weighing 0,620kg

The patient evolved well postoperatively, remained clinically stable, with the pregnancy without other intercurrences and the surgical wound always in good aspect. After more than 36 hours of post-surgery and keeping a good evolution, the pregnant woman was discharged from hospital with general orientations in follow-up with the gynecology and obstetrics and general surgery teams. The anatomopathological result showed that the right ovary had a low grade neoplasm with mesenchymal or stromal characteristics, and as possible diagnoses ovarian myxoma or thymoma. The oncotic cytology did not show neoplastic cells, and it was necessary to perform immunohistochemistry, which confirmed right ovary tachoma.

4 DISCUSSION

Although rare, regarding adnexal masses, the most frequent findings are: functional ovarian cysts, benign cystic teratomas, serous cystadenomas, hemorrhagic cysts, pregnancy-specific ovarian alterations and endometriomas. [8] The anatomopathological study of the case in question showed two possible diagnoses with: ovarian myxoma or tachoma, and also showed an intact cystic capsule presenting in its largest diameter 14.5 cm, considered large. It was necessary to perform immunohistochemistry, which in turn confirmed the ovarian tachoma.

In this angle, according to the literature data, masses measuring from 8-12 cm are associated with higher risk of ovarian torsion, similar to the case report. [5] It is known that ovarian tumors are responsible for approximately 50% to 90% of cases of torsion in adult patients. Likewise, 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. [5]

Nevertheless, in the present case there is the observation that during prenatal care, around the 18^0 week, the pregnant woman began a picture of progressive abdominal pain of mild to strong intensity, which generates the greatest difficulty: the General Surgery team to choose the surgical treatment option more urgently, since it is based on an atypical picture of pain due to ovarian torsion, perhaps masked by the analgesic, which in general is represented by an acute abdomen, with intense and sudden pain. [14] On the other hand, but still in agreement with the studies, symptoms that are persistent are closely related to the size and volume of the tumor, causing mild to moderate intensity pain[9] , abdominal distension and palpable masses in the abdomen or pelvis. [6] Therefore, the lack of improvement of the condition was crucial in making an earlier decision.

It is a fact that most masses resolve by the second trimester of pregnancy[10] and this is the best time for surgical intervention, since the risk of miscarriage is lower. [14] However, it is essential that the ultrasonography of pelvic masses be performed, since it represents the first line of propedeutics[1] , being possible to identify the risk of events such as: rupture, torsion, obstructed labor or malignancy, helping in the decision between adopting a conservative conduct, requiring complementary diagnostic procedures or performing surgical interventions[8] besides the identification of the gestational age. It is also true that the risk of malignancy of an adnexal mass does not exceed 1% of diagnosed cases, and the report is in agreement with the literature.

The choice of treatment is always of utmost importance, and is the main obstacle of the case itself due to the borderline changes in the patient and the tumor. The surgical preference must 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 complex nature, that persist after 16 weeks of gestation or are associated to the presence of extra-ovarian disease,[15] besides the desire of future gestation, among others. About the technical challenge, in what refers to masses of smaller volumes it is possible to use laparoscopy. [12] On the contrary, in the case of large ovarian mass associated with an enlarged uterus, laparotomy is more effective, being performed salpingectomy and/or oophorectomy[4] , as in the reported case.

5 CONCLUSION

This paper describes the rare case of a primigravida pregnant woman, with no previous pathological history or positive family history of malignancy, presenting with an adnexal mass in the right ovary, which was twisted without major acute clinical manifestations, but that by persistence unfolded into surgical

approach by laparotomy, being assisted in a philanthropic hospital, in monitoring with the teams of general surgery and gynecology and obstetrics, a fact that influenced the best treatment and enabled the continuity of pregnancy without complications.

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