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Case Study

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TORSION OF A GIANT OVARIAN CYST DURING PREGNANCY: ABOUT A CLINICAL CASE.

***Dr. A. Benani, M. Bouterfas, M. Serroukh Pr. M. Yousfi and Pr. S. Bargach**

Department of Gynecology- Obstetrics Canerology and High Risk Pregnacies Unit Maternity Souissi Hospital Ibn Sina Rabat.

***Corresponding Author: Dr. A. Benani**

Department of Gynecology- Obstetrics Canerology and High Risk Pregnacies Unit Maternity Souissi Hospital Ibn Sina Rabat.

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ABSTRACT

Ovarian torsion is a serious complication and is a surgical emergency. We report the case of a patient who developed ovarian torsion during the first trimester of her pregnancy. The objective is to show the difficulties of diagnosis and the advantage of early management. Follow-up and rapid transfer of the patient led to preservation of the ovary (detorsion + cystectomy). Postoperative preventive tocolysis with progestins and antiprostaglandins and a rigorous follow-up at the prenatal consultation allowed to maintain the pregnancy.

INTRODUCTION

Adnexal torsion is a relatively frequent pathology, representing 2.5 to 7.4% of women consulting for acute pelvic pain.[1] Adnexal torsion is achieved by a torsion on the axis defined by the lombo-ovarian ligament and the tuboovarian ligament. It may involve the tube and ovary, the ovary alone, and less frequently the tube alone. Torsion is defined by the existence of a rotation of at least 1 turn of the adnexa.

Adnexal torsion during pregnancy is a rare emergency. Its incidence varies from 3 to 5 per 10,000 pregnancies secondary to total or partial rotation of the ovary around its vascular axis.[2,3] It may be favoured by the existence of an adnexal mass or ovarian hyperstimulation which sometimes leads to the formation of ovarian cysts.[4] It is a surgical emergency, the clinical diagnosis of which remains difficult due to the non-specificity of the clinical picture.[5,6] The literature reports an accuracy of clinical diagnosis in only 57.8% of cases.[7] Ovarian torsion during pregnancy occurs mainly during the first two trimesters of pregnancy (70 to 90% of cases).[8,9] We report here the case of a torsion of a giant ovarian cyst in a pregnant woman of 14 weeks of amenorrhea in Rabat, Morocco.

PATIENT AND OBSERVATION

Mrs. K.T. was consulted in emergency for intense pelvic pain.

The patient is 19 years old, married G1P0, pregnant with 12 weeks of amenorrhea according to early ultrasound, she presents no notable medical or surgical history.

The history of the disease goes back to 5 hours before the arrival to the emergency room by the sudden installation of pelvic pain accentuated on the right with lumbago, associated with nausea and vomiting and an alteration of general state.

At our physical examination, the patient was conscious, lucid, altered general state, with a suffering face. The patient weighed 82 kg. She was apyretic and hemodynamically stable. Her palpebral conjunctiva were well colored, the oral mucosa was pink, the tongue clean and moist. Auscultation of the heart and lungs was unremarkable. The abdomen was enlarged, with tenderness to palpation and peristalsis was present. Speculum examination showed a healthy cervix with no bleeding or leucorrhoea. The vaginal touch noted a long, posterior and closed cervix; right latero uterine mass the Douglas was bulging and not tender. The examination of the limbs was normal.

A pelvic ultrasound was performed in the emergency department which showed an evolving monofetal pregnancy ac+ avc LCC corresponding to 12SA+ 3JRS with absence of placental abruption image, in addition we note the presence of a large peritoneal effusion, absence of vascularization of the right ovary on the Doppler In the history, the patient is followed at the prenatal consultation of high-risk pregnancies at the maternity ward of Souissi Rabat with a complete prenatal check-up with an echography **PICTURE1** that speaks of a peritoneal effusion of great abundance with fine partitions and a pelvic MRI **picture2** that objectifies an ovarian mass lateralized to the right with lobular contours, multilocular with thick and regular walls of 190*87*127mm with a CA125 at 52ui.

In view of the clinical and radiological data, an exploratory laparotomy was indicated.

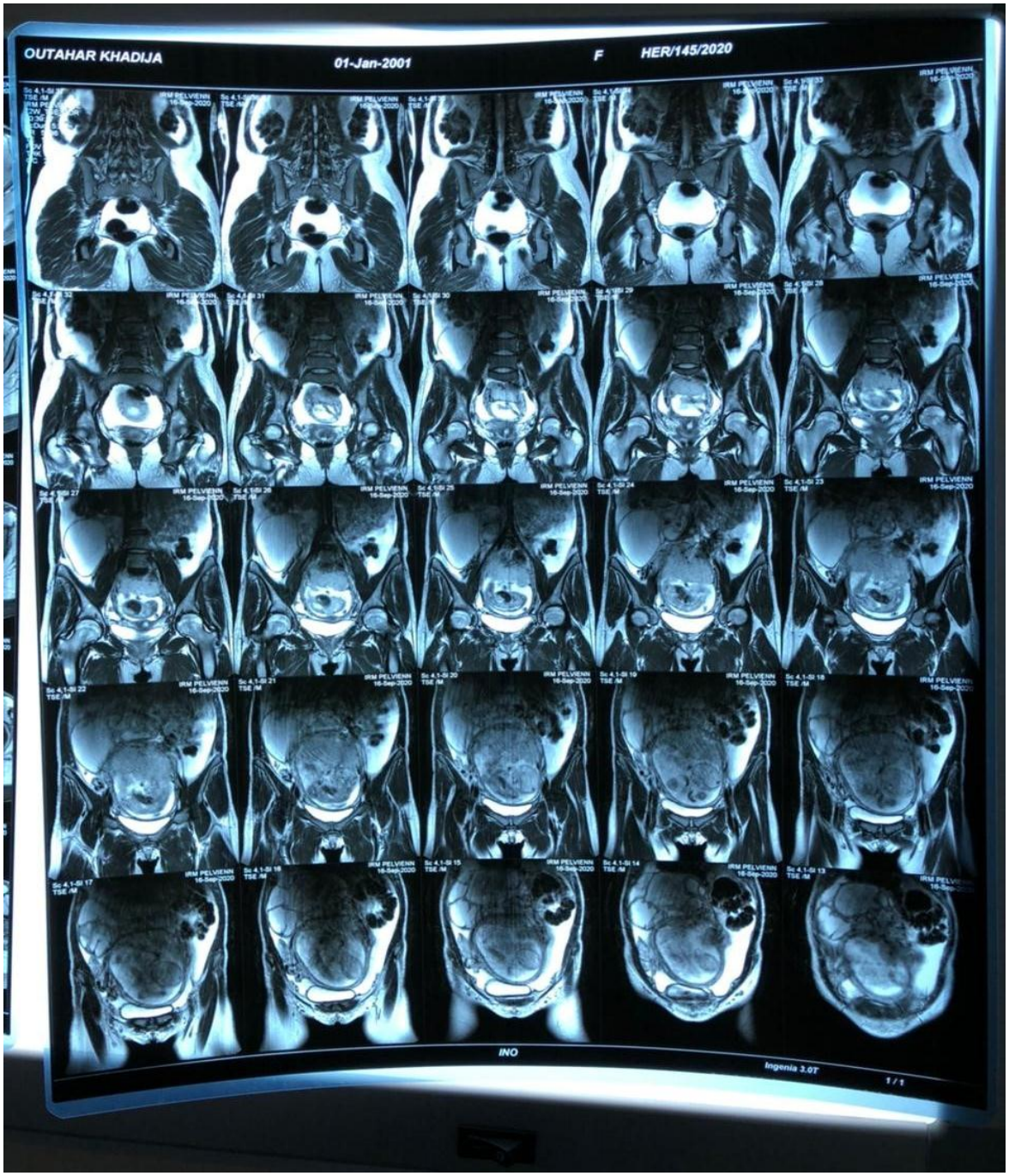
The per operative finding was a twisted right ovary with a huge cyst of 20cm and a small amount of ascites**.**

PICTURE3

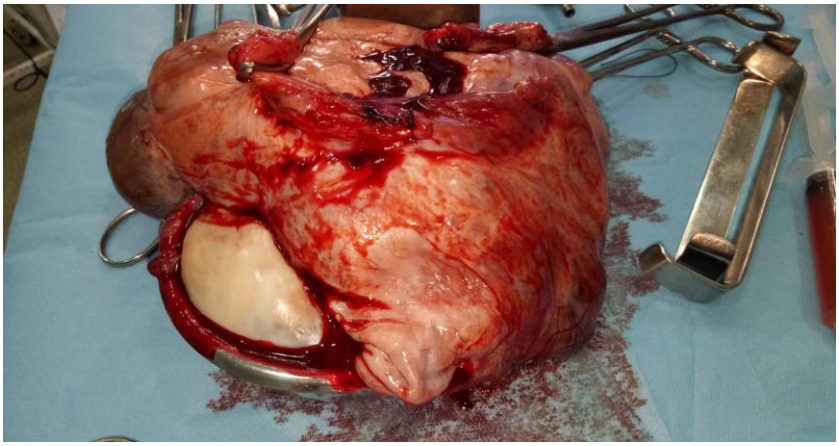
We opted for a conservative treatment with detorsion then right cystectomy.

To avoid a miscarriage, a preventive postoperative tocolysis had been instituted: - Utrogestan 200 micrograms tablet at a rate of 2X1ce/day In-vagina during 3 weeks and Indocid suppository at a rate of 2x1 suppo/day during 7 days. The postoperative follow-up was good and the pregnancy developed normally. The pregnant woman gave birth to a male infant weighing 3000g at 3 weeks of amenorrhea.

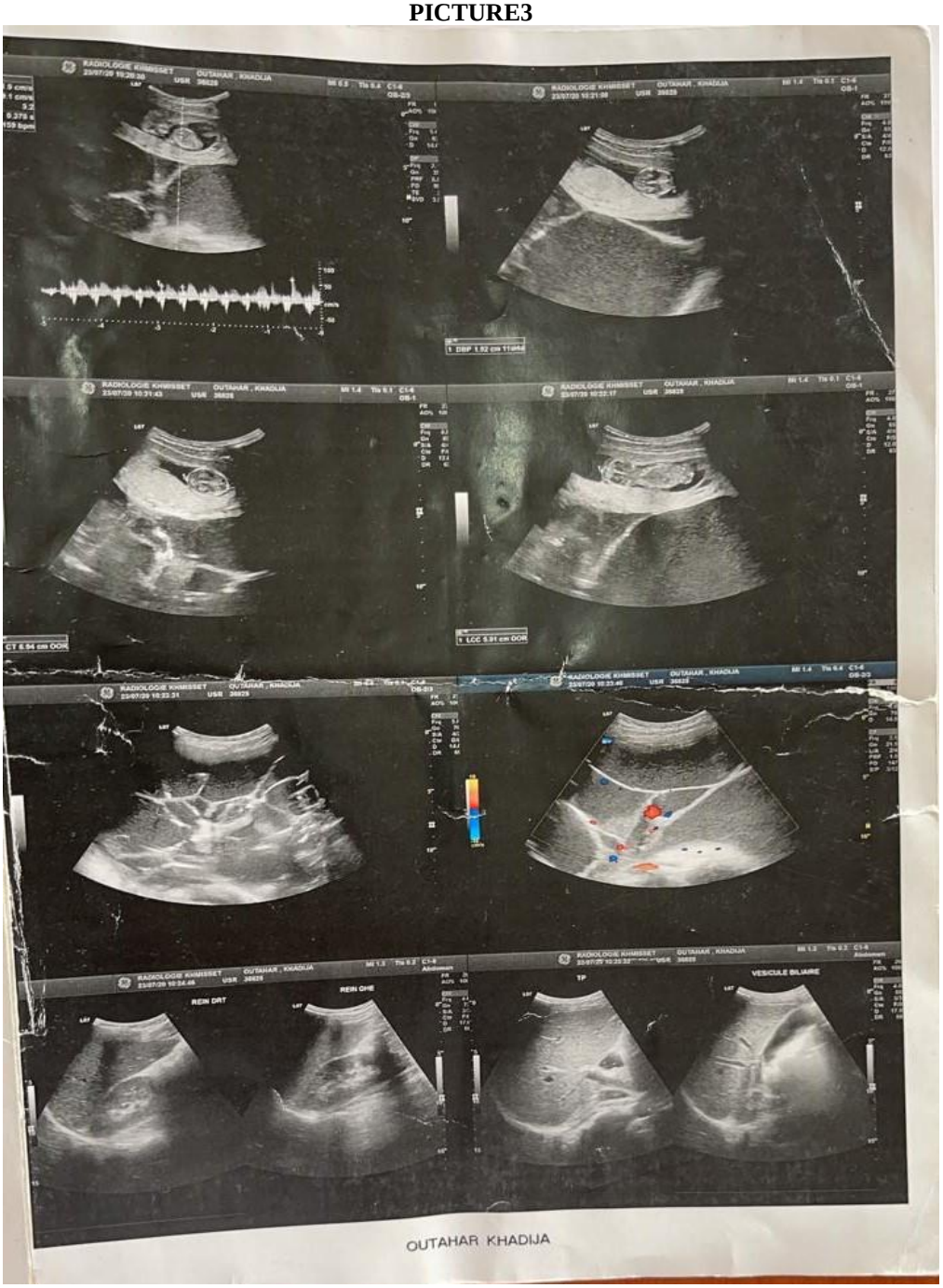
Anapath returned in favor of a serous cystadenoma.



PICTURE2



PICTURE3



PICTURE 1

DISCUSSION

The right side is incriminated in two thirds of the cases of adnexal torsion, which can be explained by a right uteroovarian ligament that is physiologically longer than the left and/or by the presence of the sigmoid on the left, which reduces the space necessary for torsion. (1) Any increase in the weight of the adnexa can also be a cause of adnexal torsion. benign ovarian cysts are more frequently the cause of torsion than ovarian cancers, which adhere to or even invade contiguous tissues. In our patient the mass was cystic on the right and weighed 600g Pregnancy is also a favourable factor, mainly during the first trimester, with pregnant patients accounting for nearly 15% of all adnexal torsions (2s). The most common etiology in pregnancy is the presence of a corpus luteum cyst. Adnexal torsion is the main complication of adnexal masses during pregnancy, and mainly in the first trimester of pregnancy, representing 25% of these complications.[12]

Clinical outcomes occurring with ovarian torsion vary depending on how rotation is established. With progressive torsion, lymphatic drainage is compromised first, leading to increased ovarian size due to lymphatic edema.[12] This is followed by venous obstruction and hemorrhagic infarction.[12] The final stage is interruption of arterial blood supply which may lead to gangrene.[13] Torsion of an ovarian cyst during pregnancy is quite rare and occurs in only about 17% to 19.8% of cases.[6]

The most frequently described ovarian cysts are: follicular or hemorrhagic cyst, teratoma and cystadenoma.[15] It should be noted that the majority of cases (approximately 50%) are mechanical torsion of large functional cysts. The risk of torsion of the ovary is correlated with the size of the cyst.[15,17] Some authors suggest that the risk is higher if the cyst is larger than 5 cm.[15,17] Our cyst is larger than 15 cm.

The preoperative diagnosis of adnexal torsion is difficult as shown in the literature. The median duration of symptoms before diagnosis is 3 days and the diagnostic delay is 22 hours when the patients are managed (4s). In the different series studying the efficiency of the preoperative diagnosis, it is correct in only 23 to 66% of cases (1s), whereas the suspicion of adnexal torsion implies emergency surgery. This can be explained by a great disparity in the modes of presentation the mode of sudden onset is inconsistent and would be missing in half of the patients. Similarly, the intensity of the pain is inconsistent. The location of the pain may be suggestive. Generally, the spontaneously felt pain is unilateral and may be associated with lumbar irradiation; associated signs such as nausea and vomiting are present in nearly 70% of cases of adnexal torsion.

The Doppler effect in ultrasound has been studied and its usefulness is discordant according to different studies. According to Pena et al (5), 60% of torsions are not seen on Doppler, but its positive predictive value is 100%. Doppler only diagnoses arterial flow interruptions and does not allow the diagnosis of venous interruptions, which are often prior to arterial interruptions. A normal Doppler examination therefore does not allow the exclusion of adnexal torsion.

The current trend is towards conservative treatment, i.e. leaving the ovary in place, even if it is ischemic, after it has been soaked in warm saline. This attitude is supported by several arguments: the great capacity for functional recovery of ovarian tissue justifies being conservative even in the case of an ovary of doubtful vitality[9]; the fear of causing a pulmonary embolism by simple detorsion is only theoretical.

Only one case has been described in the literature. There is a large body of recent literature advising conservative treatment of a necrotic ovary, despite its bluish color and deep haematomas[10], because there is no correlation between the macroscopic appearance of the ovary and the degree of ischaemia.

The main reluctance to undergo conservative treatment is the theoretical fear of thromboembolic complications secondary to detorsion of an ischemic adnexa. However, the incidence of pulmonary embolism in case of adnexal torsion is 0.2% and is not increased after detorsion.[11]

Ovariopexy is proposed by some authors to prevent recurrence of adnexal torsion. The recognised indications are a malformation or lengthening of the utero-ovarian ligament, torsion on a single adnexa or contralateral pexy in the case of adnexectomy of the twisted adnexa. Similarly, as recurrence approaches 20% in pregnant patients, a pexy seems to be indicated in these patients.[11] It is carried out by fixing the ovarian end of the utero-ovarian ligament to the posterior face of the broad ligament using a non-absorbable crimped wire. This procedure allows the utero-ovarian ligament to be shortened and therefore reduces ovarian laxity.

CONCLUSION

Adnexal torsion is a pathology frequently encountered in emergency. Their diagnosis requires a good knowledge of their semiology.

The favourable outcome of this pregnancy underlines the importance of preventive tocolysis with progestins and rigorous and close monitoring of the pregnancy

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