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Case Report

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CONSERVATIVE SURGICAL TREATMENT OF A RIGHT TUBAL ECTOPIC PREGNANCY IN A PATIENT WITH A HISTORY OF LEFT SALPINGOTOMY: A CASE REPORT

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ABSTRACT

We describe a case of conservative surgical treatment by salpingotomy of an unruptured right tubal ectopic pregnancy in a patient with a history of left salpingotomy for left tubal ectopic pregnancy 3 years ago. Preservation of future fertility became possible with the introduction of conservative surgical procedures.

KEYWORDS: Tubal ectopic pregnancy; Salpingotomy; salpingectomy; recurrence; Fertility.

INTRODUCTION

Ectopic pregnancy is usually defined as a pregnancy in which implantation occurs outside the endometrium and endometrial cavity.

About 2% of pregnancies are ectopic, most frequently tubal.[1]

Ectopic pregnancy remains the leading cause of death in the first trimester of pregnancy despite the progress made in early diagnosis.

The frequency of ectopic pregnancy as a complication of sexually transmitted diseases and smoking, combined with the significant risk of sequelae make it a marker of public health and justify an early diagnosis.

The morbidity and mortality associated with this condition have been greatly reduced thanks to preventive diagnostic tools. Different surgical and medical therapeutic strategies have been developed over the last three decades.[2,3]

The challenge of treating ectopic pregnancy is the optimization of the subsequent fertility of the patients, in particular by limiting the risk of recurrence.

Conservative surgical treatment, salpingotomy as in our case, is the only therapeutic means to preserve fertility in a woman with a history of salpingotomy when there is no indication to medical treatment.

CASE REPORT

Patient 33 years old, history of passive smoking 6 years ago, operated 3 years ago for ectopic pregnancy, gravida 3, para 1, the first pregnancy was ectopic pregnancy operated by conservative surgical treatment (salpingotomy), the second pregnancy ended by vaginal delivery one year ago, the third pregnancy is the current pregnancy estimated at 9 weeks of amenorrhea.

The history of the disease goes back to 2 days before her admission by installation of a pelvic pain the whole evolving in a context of apyrexia with conservation of the general state what motivated the patient to consult, one asked him b-HCG which came back to 29376 mUI/ ml.

On admission, the patient was conscious, normotensive, the speculum examination did not find any genital bleeding, on vaginal touch the cervix was long closed posteriorly.

The pelvic endovaginal ultrasound showed a thickened endometrium with empty uterus and presence of a right latero-uterine mass measuring 31 x 26 mm with no intra-abdominal effusion.

The patient was hospitalized with regular monitoring of blood pressure and heart rate and a complete biological workup with a level of b-HCG=14941 mUI/ ml and progesterone=15.8ng /ml.

After 48 hours, the b-HCG level=12462 mUI/ ml.

An exploratory laparotomy was decided, at exploration: no effusion, left tube healthy, right tube with a mass suggesting trophoblastic tissue, right salpingotomy was performed, the operative part was sent for anatomopathological study.

The postoperative course was unremarkable, the b-HCG level 48 hours after surgery=1288.3 mIU/ml.

Anatomopathology showed a tubal pregnancy with no sign of malignancy.

10 days after the surgery, the b-HCG level=68 mUI/ml.

Figure 1: Endovaginal ultrasound showing the right tubal ectopic pregnancy.

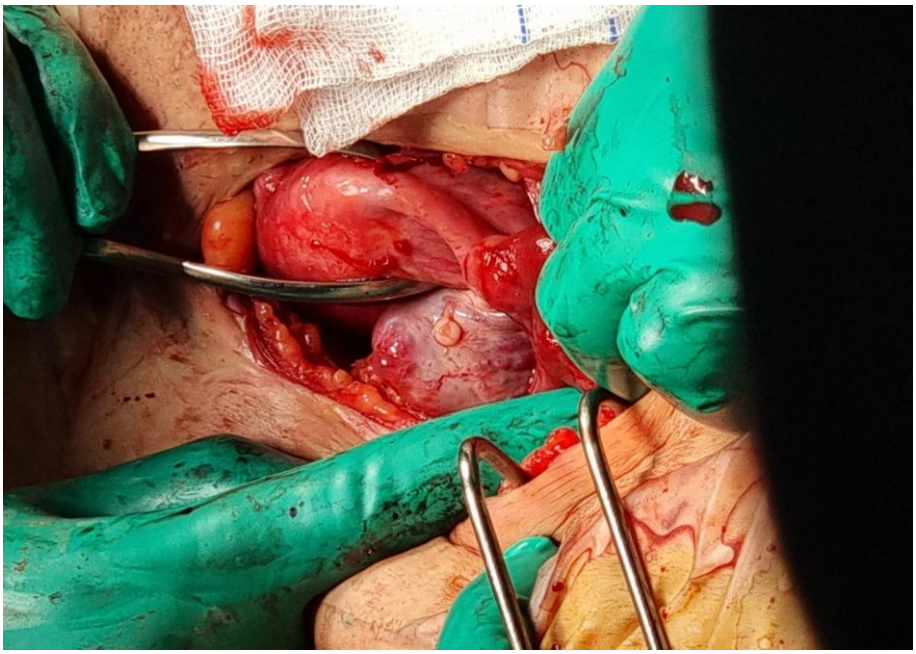

Figure 2: right tubal ectopic pregnancy after laparotomy.

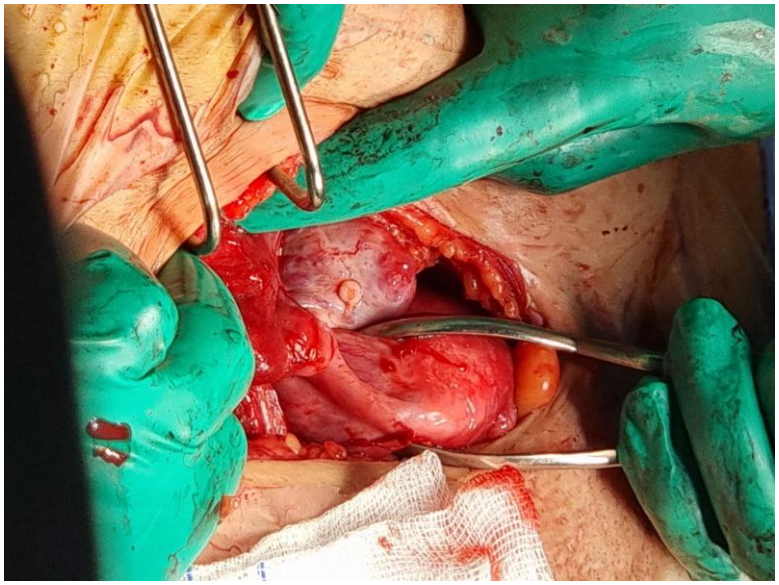

Figure 3: unruptured right ampullary ectopic pregnancy.

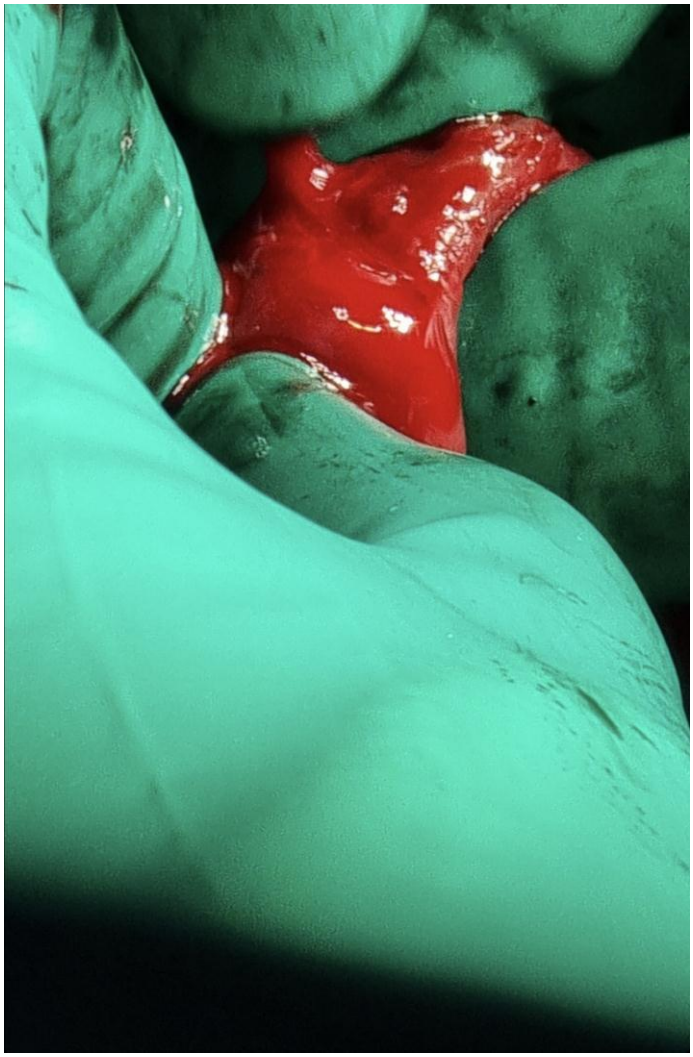

Figure 4: unruptured right tubal ectopic pregnancy.

Figure 5: the decision to perform a right salpingotomy.

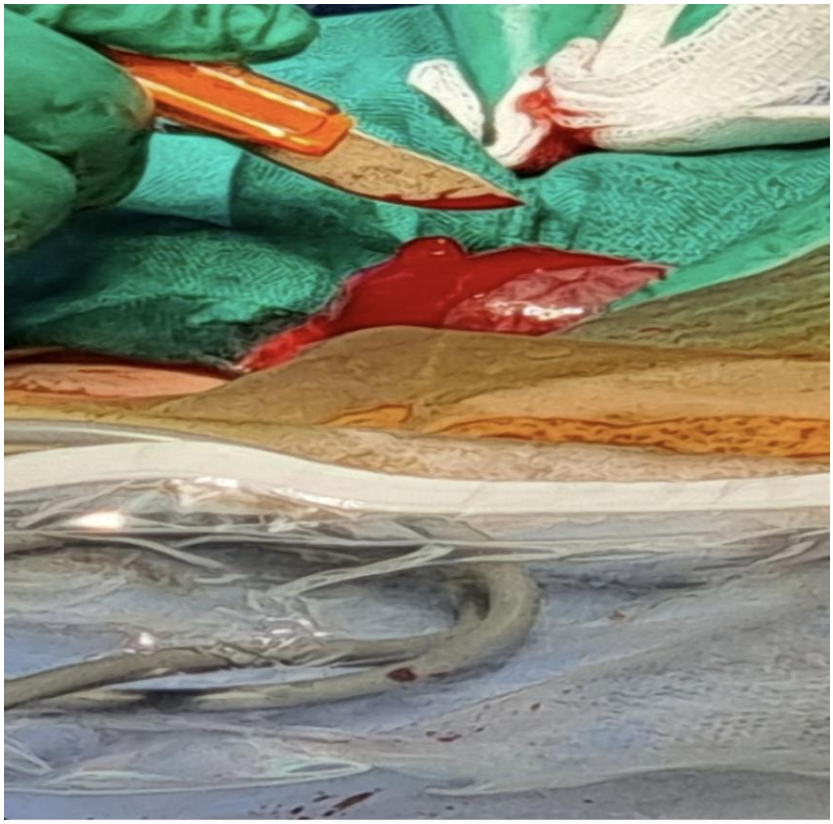

Figure 6: right salpingotomy.

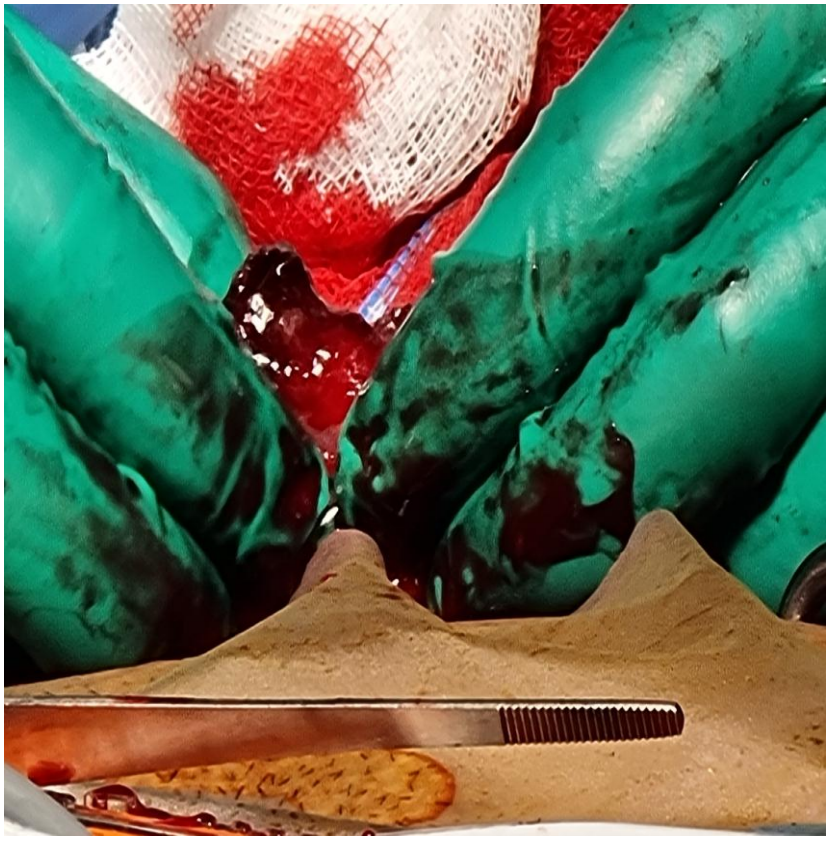

Figure 7: evacuation of the conception product with fimbrial expression.

Figure 8: total evacuation of the conception product.

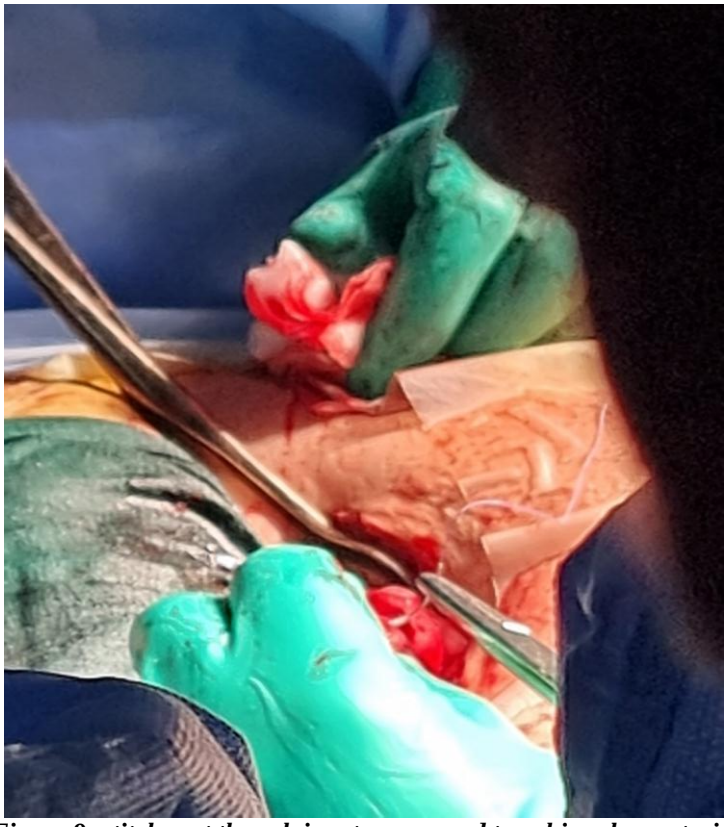

Figure 9: stitches at the salpingotomy wound to achieve hemostasis.

Figure 10: The conception product evacuated after the conservative surgical treatment.

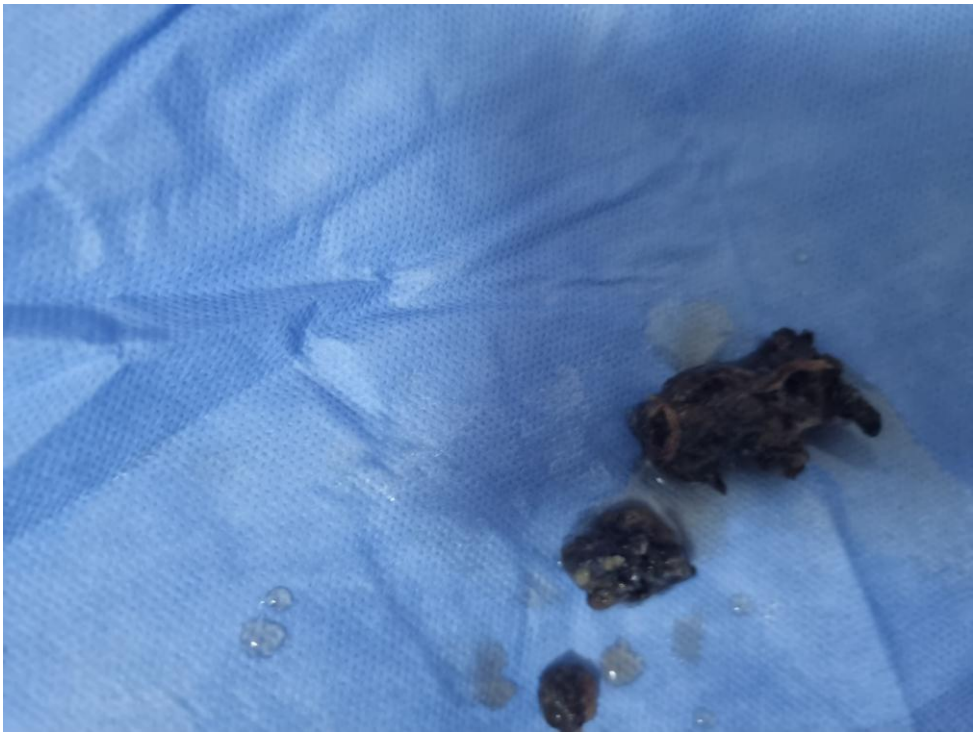

Figure 11: The evacuated conception product is prepared to be sent for anatomopathology study.

DISCUSSION

The incidence of ectopic pregnancy is estimated as about 2 % reported pregnancies. When untreated, ectopic pregnancy could be fatal; today, the death-to-case rate for ectopic pregnancies is estimated as 1.4 ‰.[1]

Patients already operated for ectopic pregnancy by salpingotomy may have a recurrence on the contralateral tube.

Various risk factors appear to be associated with recurrence of ectopic pregnancy, such as a history of surgery, live births or spontaneous miscarriages.[4] or a history of salpingites, smoking, recurrent miscarriage or advanced maternal age.[5]

Three factors appear to influence the absolute risk of recurrent ectopic pregnancy: the history of voluntary interruption of pregnancy, infertility and childbirth. The protective effect of multiparity had already been demonstrated by Tuomivaara and Kauppila in 1998.[6] As for the protective effect of a history of infertility, this result seems to be explained simply by a decrease in the overall fertility of these patients.

The only risk factor for recurrence identified is the history of voluntary interruption of pregnancy. The risk of occurrence of infectious complications after termination of pregnancy.[7] could be the explanation.

In the literature, the data on risk factors for recidivism are discordant. According to Saada et al.[5] patients over 30 years of age or with a history of smoking, salpingite, spontaneous abortions, or live births, would have an increased risk of recurrence. Conversely, a history of intrauterine device use would be protective.[5]

Tubal location accounts for 95% of ectopic pregnancies.

The clinical symptomatology of ectopic pregnancy is represented by minimal blackish bleeding of endouterine origin during the first trimester of pregnancy, excruciating pelvic pain, sensitivity of the vaginal touch especially during the displacement of the uterine cervix, and even shock.

The diagnosis is based on beta-HCG measurement and pelvic ultrasound.

The element of the technology revolution in the management of ectopic pregnancy is the progress made in the measurement of human chorionic gonadotropin (hCG). hCG is a sialoglycoprotein with a molecular weight of about 40.000.It is composed of two subunits of unequal size, The a-subunit is virtually identical to other hormones produced by the pituitary. The P-subunit is specific for hCG. hCG is primarily produced in large amounts by the placental sincytiotrophoblast, and in early pregnancy it acts to sustain the corpus luteum beyond its normal lifetime.[8]

Towards the end of the sixties, ultrasonography gained wider popularity as it was shown to improve the diagnostic accuracy of ectopic pregnancy.[9] The ultrasonographic visualization of an intra-uterine gestational sac excludes the presence of ectopic pregnancy, except in the case of simultaneous uterine and ectopic pregnancies, which occurs very rarely

1:15000-l:30000.[9-10] Transvaginal ultrasound has provided additional improvement of resolution of imaging, which permits an earlier determination of ectopic pregnancy.[11,12]

The treatment of ectopic pregnancy can be medical with methotrexate, or surgical which can be conservative (salpingotomy) or radical (salpingectomy).

In our case, the patient presented with an unruptured right tubal ectopic pregnancy with a history of left salpingotomy. Medical treatment could not be indicated due to the high level of beta-HCG. To preserve fertility, we therefore considered conservative surgical treatment by salpingotomy.

In 1914, Beckwith Whitehouse performed the first salpingotomy.[13]

salpingotomy having the theoretical advantage of preserving fertility.[14,15] Nevertheless, this method has two notable disadvantages: trophoblastic retention (leading to a new surgery or to the administration of methotrexate in addition) and a risk of recurrence of homolateral ectopic pregnancy.

No study has tested the superiority of radical or conservative treatment.

However, conservative treatment appears to result in superior subsequent fertility.

The idea that an ectopic pregnancy could be a reproductive failure rather than a tubal disease promoted a conservative attitude.[16] The first instance of the use of the conservative surgical treatment (salpingotomy) which appeared in the English literature was published by Stromme in 1953.[17] Since then several additional types of conservative operation on unruptured tubal pregnancy have been suggested: salpingotomy, segmental resection and fimbrial expression.[9,11] Conservative surgical treatment has provided favorable subsequent conception rates when compared to extirpative procedures (salpingectomy).[11]

The indication for salpingotomy is based essentially on four criteria: the operability of the ectopic pregnancy, the assessment of the risk of failure, the desire for a subsequent pregnancy, and the fertility prognosis which must take into account the probability of obtaining an intrauterine pregnancy and the risk of recurrent ectopic pregnancy.

According to the data in the literature, laparoscopic salpingotomy is less effective than laparotomy due to higher rates of trophoblast persistence.[18]

History of ectopic pregnancy, salpingite, single tube, tubal surgery, or the existence of adhesions, profoundly modify the subsequent prognosis of fertility.

Persistent ectopic pregnancy, first reported by Kelly et alI4 in 1979, seems to follow about 5% of salpingotomy procedures.[19,20]

Tuomivaara and Kauppila.[6] reported that only nine of 35 (26%) women, who retained at least one fallopian tube after two ectopic pregnancies, later had a successful intrauterine pregnancy. DeChemey et al.[21] reported 13 patients who attempted pregnancy after two ectopic gestations. One of these women had a third tubal pregnancy and only four (30.7%) had intrauterine pregnancies.

CONCLUSION

Salpingotomy has gradually replaced salpingectomy as the surgical procedure of choice for unruptured tubal pregnancy in women who wish to preserve fertility.

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