

**COMPLETE TUBAL ABORTION: A RARE FORM OF ECTOPIC PREGNANCY ABOUT  
A CASE****\*Mariam Bourzoufi, Hafssa Taheri, Saadi Hanan and Ahmed Mimouni**

Department of Gynecology - Obstetrics, Mohammed VI University Hospital Oujda, Morocco.

**\*Corresponding Author: Mariam Bourzoufi**

Department of Gynecology - Obstetrics, Mohammed VI University Hospital Oujda, Morocco.

Article Received on 20/02/2022

Article Revised on 10/03/2022

Article Accepted on 30/03/2022

**SUMMARY**

Tubal abortion is characterized by the expulsion of an ectopic product of conception implanted in the fallopian tubes through the abdominal ostium into the peritoneal cavity. Whether complete or incomplete, it can result in significant bleeding. Knowing a complete tubal abortion can be difficult, but its diagnosis is essential for conservative therapy in order to preserve tubal function and fertility. Ultrasound examination helps to recognize hemoperitoneum but is of little value in the diagnosis of tubal abortion. Laparoscopic findings alone are only suggestive of complete tubal abortion, but in combination with  $\beta$ -hCG cinetics, the diagnosis can be established.

**KEYWORDS:** Tubal abortion, ectopic pregnancy,  $\beta$ -hCG, fertility.**INTRODUCTION**

Ectopic pregnancies account for 1% to 2% of all pregnancies and are the leading cause of gynecologic emergencies.<sup>[1,2]</sup>

The most common location of an ectopic pregnancy is in the fallopian tubes (95%)<sup>[2]</sup> When a pregnancy settles in the fallopian tubes, the evolution can be either by tubal rupture or tubal abortion,<sup>[3]</sup> both situations resulting in bleeding.

Ectopic pregnancy leads to hemorrhage, which is the main source of maternal death during the first trimester of pregnancy.<sup>[2]</sup> It is also an important cause of morbidity with a high percentage of affected patients who may become infertile.<sup>[4]</sup>

We report the case of a 34-year-old woman admitted with acute pelvic pain, who was diagnosed with a complete tubal abortion.

**PATIENT AND OBSERVATION**

Patient aged 34 years, married, gestite 3 parity 2, having two live children delivered by vaginal route, having no particular personal or family pathological antecedents, she was admitted to the emergency room for an amenorrhea of 2 weeks and 2 days with the appearance of an acute pelvic pain in the right iliac fossa. Symptoms appeared 12 hours before her arrival in the emergency room.

On admission, the patient was conscious with a blood pressure of 110/70 mmHg, and a heart rate of 109 bpm, Apyretic with a slight pallor of the skin that was noted.

Localized sensibility mainly in the right iliac fossa. At the speculum a minimal blood flow from the endocervix, and at the vaginal touch a douglas cry with the sensation of a slightly increased uterus.

An endovaginal pelvic ultrasound revealed: a uterine vacuity with a uterus measuring 70/58 mm with an endometrial thickness of 13 mm; both ovaries were visualized with a heterogeneous right latero-uterine image measuring 52/34 mm, with a Douglas effusion measuring 7 cm. (Figure 1).

The biological workup showed a hemoglobin level of .10 g/dL. The beta-HCG level was 350mU/ml, during her hospitalization the patient was hemodynamically stable and her symptoms were stable. Based on the patient's symptoms, quantitative plasma  $\beta$ -hCG, and ultrasound findings, an ectopic pregnancy with hemoperitoneum was suspected.

A diagnostic laparotomy was proposed. During surgery, a blood effusion with clots (about 300 ml) was found in the peritoneal cavity in the vesico-uterine space, the pouch of Douglas and the bilateral parietocolic gutters. (Figure 2).

A pseudotumor mass consisting of blood clots and tissue (Figure 2), was found in the douglas sac, The uterus and both ovaries had a normal appearance. The left fallopian

tube was normal but the right fallopian tube showed active bleeding through the abdominal ostium. A saline lavage and careful hemostasis were performed by compression and electrocoagulation. The extracted mass was sent to the anapath for histological study. The estimated blood loss was 400 ml. The postoperative follow-up was favorable.

Patient declared discharged from the hospital on the third day, The control Beta-hCG level on the day of discharge was 100 mU /ml, then dropped to 40 mU/ml 5 days later.

Histopathologic examination of the harvested mass revealed the presence of blood clots with small fragments of tubal-like epithelial tissue, small fragments of intermediate trophoblast, and decidual aggregate.

Immunohistochemical testing for human placental lactogen (hPL) confirmed the trophoblastic nature of the cells.

Consent: written informed consent has been obtained from the patient for the publication of this case report and all accompanying images.



Figure 1: Ultrasound images showing the latero-uterine mass and the presence of the effusion.

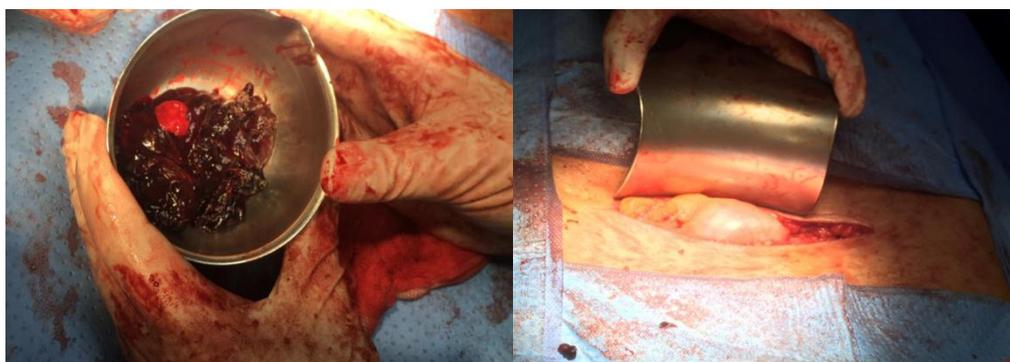


Figure 2: A diagnostic laparotomy with removal of the mass of blood clots and tissue.

**DISCUSSION**

Ectopic pregnancy is usually diagnosed in the first trimester of pregnancy. The main symptoms include amenorrhea, breakthrough bleeding and pelvic or abdominal pain.<sup>[1]</sup>

The vast majority of ectopic pregnancies are located at the tubal site, with the ampulla being the most common site for implantation (~70%), the isthmus and infundibulum being less common.<sup>[3,5]</sup>

Tubal pregnancy represents an inappropriate environment for trophoblast implantation,<sup>[2]</sup> the natural history includes spontaneous expulsion through the abdominal ostium which defines (tubal abortion).<sup>[1]</sup> When early diagnosis is delayed, continued trophoblast

growth may result in rupture of the tubal wall and thus hemoperitoneum.<sup>[2]</sup>

Tubal abortion may be complete, when the product of conception is completely removed, or incomplete, when the product of conception remains attached to the implantation site or is only partially removed, and may be followed by tissue resorption.<sup>[2,3,6]</sup> or by trophoblastic reimplantation into the abdominal cavity (abdominal or ovarian pregnancy).<sup>[1,2,3,6,7]</sup>

No actual data are available on the incidence of tubal abortion. Incidence rates have been reported as 2.5%.<sup>[3]</sup>

In older series, the relative frequencies of tubal abortion ranged from 6% to 73% of all tubal pregnancies.<sup>[3]</sup> The difference in incidence rates may be explained by

diagnostic difficulties and different pathologic definitions of tubal abortion.

The main classic symptom described in tubal pregnancy is lower abdominal and pelvic pain,<sup>[2]</sup> due to tubal distension.

The expulsion of the gestational product into the peritoneal cavity causes severe pain and acute signs of peritoneal irritation,<sup>[3]</sup> appear. In our case, the patient was admitted with acute pelvic pain associated with sensibility of the right iliac fossa, but which remained stable during hospitalization.

Rival et al. made similar observations in an analysis of 132 cases of ectopic pregnancy, where non-acute symptoms were reported in most cases of tubal abortion (86%).<sup>[3]</sup>

The presence of intraperitoneal blood clots can cause tissue inflammation,<sup>[2]</sup> with subsequent adhesion formation, infertility, and chronic pelvic pain.<sup>[3]</sup>

The diagnosis of tubal abortion is important to know because it meets the requirements of conservative treatment techniques. Nowadays, because of the concern about fertility, conservative management is the mainstay of treatment.<sup>[3]</sup>

Nonsurgical management, based on the potential for spontaneous resorption and regression of tubal abortion,<sup>[3]</sup> has been proposed, but this approach is not supported by studies.

Surgical treatment (laparoscopy or laparotomy) offers the possibility of removing blood and aborted tissue from the peritoneal cavity and performing hemostasis. In our case, the normal appearance of the fallopian tube and successful hemostasis at the fimbrial end allowed preservation of the tube, and thus of fertility. This approach was possible because of the early diagnosis which allowed conservative management.

Kinetics of beta-hCG were monitored to ensure gradual decrease. In case of complete abortion, the  $\beta$ -hCG level should decrease with a half-life of 24 hours.<sup>[4]</sup> In our case the level decreased from 350 mU/ml to 100 mU/ml in 3 days, then to 40 mU/ml in 5 days. This confirms the diagnosis of complete tubal abortion.

## CONCLUSION

Tubal abortion is a rare entity. Conservative management may be sufficient for a complete abortion and ensures preservation of tubal anatomy and fertility.

## Conflicts of interest

The authors declare no conflicts of interest.

## Authors' contributions

All authors contributed to the conduct of this work. All authors also declare that they have read and approved the final version of the manuscript.

## REFERENCES

1. Peltecu G. Sarcina extrauterina. In: *Tratat de Chirurgie – Obstetrica si Ginecologie*, sub red. Popescu I, Ciuce C. Editia aII-a. Bucuresti: Edit. Academiei Romane, 2014; 41-46.
2. Cunningham GF, Bradshaw KD, Halvorson LM, Schaffer JI, Schorge JO, Hoffman BL. *Sarcina extrauterina*. Williams Ginecologie, Second Edition. Mc Graw Hill, 2008; 198-215.
3. Casp E, Sherman D. Tubal abortion and infundibular ectopic pregnancy. *Clin Obstet and Gynecol*, 1987; 30(1): 155-63.
4. Elito JJ. Clinical treatment of unruptured ectopic pregnancy. *Ectopic pregnancy – modern diagnosis and management*, 2011; 177-201.
5. Paula J. Adams Hillard. *The 5-Minute Obstetrics and Gynecology Consult*. Lippincott Williams & Wilkins. 2008; 380-381.
6. Tulandi T. Ectopic pregnancy: Clinical manifestations and diagnosis. (Internet). 2016 Oct. Available from: <http://www.uptodate.com/contents/ectopic-pregnancy-clinical-manifestations-and-diagnosis>.
7. Porwal S, Gupta R. Secondary abdominal pregnancy following tubal abortion: a unique case. *J Pharm Biomed Sci.*, 2012; 16 (06): 1-2.