

Mummified Ovarian Pregnancy at the General Reference Hospital of Panzi in Bukavu/DRC: A Case Report

De Joseph Kakisingi Mibi^{1,2} , Olivier Nyakio Ngeleza¹ , Ntakwindja Mukanire¹,
Éloge Ilunga Mbaya³ , Émile Mapatano Shalamba¹, Sylvie Nabintu Mwambali¹,
Dieudonné Kakusu¹, Julien Bwama Botalatala¹ , Denis Mukwege Mukengere¹ 

¹Evangelic University of Africa, Panzi Hospital, Bukavu, DRC

²Saint Vincent Hospital, Bukavu, DRC

³University of Kinshasa, Kinshasa, DRC

Email: jbwama@gmail.com

How to cite this paper: Kakisingi Mibi, D.J., Nyakio Ngeleza, O., Mukanire, N., Ilunga Mbaya, É., Mapatano Shalamba, É., Nabintu Mwambali, S., Kakusu, D., Bwama Botalatala, J. and Mukwege Mukengere, D. (2023) Mummified Ovarian Pregnancy at the General Reference Hospital of Panzi in Bukavu/DRC: A Case Report. *Open Journal of Obstetrics and Gynecology*, 13, 252-258. <https://doi.org/10.4236/ojog.2023.132026>

Received: January 30, 2023

Accepted: February 20, 2023

Published: February 23, 2023

Copyright © 2023 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

This is a 39-year-old female patient, commercial occupation, nulliparous, primigravida, 12 weeks of amenorrhea, who consulted for desire of maternity after 15 years of infertility. The physical examination showed an abdomen of normal volume, soft and tender in the right iliac fossa. On vaginal touch, the uterus was of normal volume in an anteverted anteflexed position, regular surface with palpation at the right adnexa of a firm mass about 5 cm in diameter, irregular and tender. Free douglas. A diagnosis of infertility of 15 years was retained. Infertility workup showed a normal uterus. Right ovary normal volume, left ovary normal volume. Hysterosalpingography with and without opacification showed signs suggestive of bilateral hydrosalpinx predominating on the right. There was no obvious uterine anomaly. The blood biology did not show anything particular. An exploratory laparoscopy revealed multiple epiplo-tubero-intestinal adhesions. The right trumpet was dilated and adherent to an adnexal mass. A large adhesiolysis allowed the release of the right tube, thus opening the possibility to explore the adnexal mass. The opening of the mass allowed to individualize bony structures corresponding to the forearm with the calcified hand, and other less distinct structures. The latter finding led to the diagnosis of calcified ovarian pregnancy.

Keywords

Ovarian Pregnancy, Ectopic Pregnancy, Momified, Panzi, Bukavu, DRC

1. Introduction

Ovarian pregnancy (OP) is one of the rare extra uterine pregnancies that is often

diagnosed during surgery [1]. It is a pregnancy in which implantation has taken place in the ovary. It has a special place among ectopic pregnancies because of its rarity and the difficulties in making the diagnosis. Its frequency is estimated at 3.2% of ectopic pregnancies [2]. The lowest rate was reported in Tunis: 1 in 21,439 births [3]. It remains rare in the Congo, probably because of the difficulties in making the diagnosis and the difficulties in accessing care and hospitals with adequate diagnostic means. Contrary to other types of ectopic pregnancy (EP), GO remains an isolated and exceptional phenomenon, independent of the usual risk factors. Moreover, the exact mechanism leading to EOG is still poorly understood [4]. Its pathophysiology is poorly understood, and it seems to be secondary to a reflux of the fertilized oocyte towards the ovary [2] [3]. All the literature reviewed remains silent on the case of mummified intra ovarian pregnancy. The literature reports rare cases of ovarian pregnancies that have progressed to the second trimester or even to term [2]. The objective of this work is to report the case of a mummified ovarian pregnancy diagnosed at Panzi General Hospital in order to draw the attention of clinicians to this possibility to be evoked in front of the clinic similar to our description.

2. Patient and Observant

Patient H, 39 years old, commercial occupation, nulliparous, primigravida, last menstrual period on February 8, 2021, *i.e.* 12 weeks of amenorrhea, who consulted for desire of maternity after 15 years of infertility. The history of her illness notes previous consultations for primary infertility treated with unspecified products without success. She was admitted to Panzi General Hospital for exploration of infertility. The history showed no risk factors for ectopic pregnancy and no previous surgery. Physical examination revealed good general condition, breast examination revealed normal breasts. The abdomen was normal in size, soft and tender in the right iliac fossa. The vulva was eutrophic. On speculum the cervix was healthy. On vaginal touch, the uterus was of normal volume in an anteverted anteflexed position, regular surface with palpation at the right adnexa of a firm mass about 5 cm in diameter, irregular and tender. The douglas was free. The fingernail came back clean. A diagnosis of infertility of 15 years was retained. An infertility workup was requested. Ultrasound done by trans abdominal approach showed a uterus of normal volume (53 × 31 mm) in AVF with regular contour, clear cavity line, thin endometrium and homogeneous myometrium (**Figure 1**). The right ovary of normal volume 21 × 20 mm, left ovary normal volume with 2 dominant follicles of 5 mm diameter each (**Figure 2**). Free douglas. Hysterosalpingography with and without opacification showed signs suggestive of bilateral hydrosalpinx predominating on the right. No obvious uterine anomaly. Aspect of reflux of contrast media suggesting an upstream obstacle. No spontaneously visible abnormality. The blood biology showed nothing special. An exploratory laparoscopy was then performed and multiple epiplo-utero-tubo-in-testinal adhesions were found. The left fallopian tube was sulky and adherent to the sur-

rounding structures. The left ovary was normal but obscured by adhesions. The right fallopian tube was dilated and adherent to an adnexal mass (**Figure 3**).

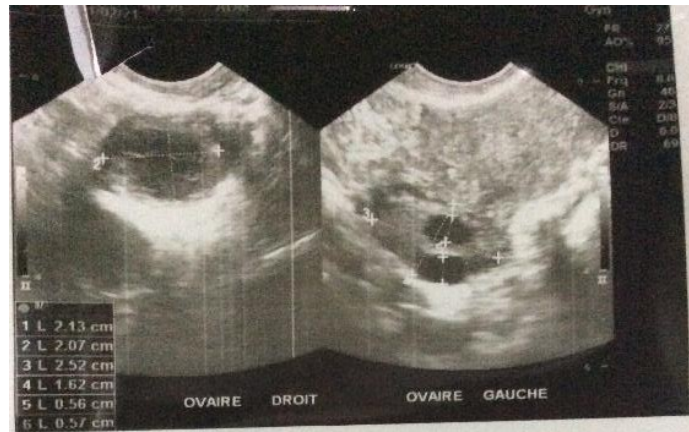


Figure 1. The right ovary of normal volume 21 × 20 mm, left ovary normal volume with 2 dominant follicles of 5 mm diameter each.



Figure 2. Uterus of normal volume (53 × 31 mm) in AVF with regular contour, clear cavity line, thin endometrium and homogeneous myometrium.



Figure 3. Right proboscis dilated and adhering to an adnexal mass.



Figure 4. Opening of the ovarian shell and externalization of the fetal remains and bone structures corresponding to the forearm the hand calcified.

A large adhesiolysis allowed the release of the right fallopian tube and the exploration of the right ovary, which was irregularly shaped with a raised shell, suggesting a microcyst. The opening of the small mass allowed the identification of bony structures corresponding to the calcified forearm of the hand and other less distinct structures (**Figure 4**); this last finding allowed the diagnosis of calcified ovarian pregnancy to be made. Extraction of her fetal-annexal remains, followed by partial resection of the ovary and haemostatic coagulation; the extracted elements were sent to anapathology, which had confirmed that they were fetal remains and adnexa. Hemostasis was ensured by thermo coagulation. Exploration of the left adnexa was performed. The permeability test of the right tube with methylene blue revealed a permeable tube. An aspiration was performed after cleaning the cavity with physiological serum. After exsufflation and removal of the laparoscopic equipment, a dressing of the parietal wounds was made. The patient remained under observation for 48 hours. At discharge an appointment was made after seven to check for possible complications later. On the day of the control appointment, the examination did not reveal anything abnormal.

3. Discussion

Ovarian pregnancy was first suspected by Mercurius in 1614 and proven from other works cited by Grall [2]. Their frequency is estimated at 2% - 3% of EPs, which represents an incidence of about 1/2500 to 1/5000 births [5]. Other authors such as Sergent and Seiner, on the other hand, consider that GO is much more frequent than is thought [6] [7]. For example, Sergent [7], found that the incidence was estimated at 1 per 1400 births in his study. Finally, the frequencies put forward are discordant. According to Grall [2], this disparity can be explained by the lack of rigor in the respect of anatomical and histological criteria involved in the diagnosis of ovarian pregnancies. In our case, this was the first

ovarian pregnancy diagnosed in our hospital. The patient was 39 years old, nulliparous, primigravida and of average socioeconomic level. According to the literature, advanced age seems to be a risk factor for ovarian pregnancy, which is the case for our 39-year-old patient. The age of the patients varies between 21 and 44 years and parity from 0 to 3 [4] and advanced age seems to be associated with an increased risk of ectopic pregnancies due to long-term exposure to risk factors [8]. In a study conducted in Côte d'Ivoire, the age of onset was between 20 and 34 years [9]. For E. Philippe [10], the average age of onset of GO is 29 years. In our case, the patient was not exposed to the usual risk factors. Also in our case, the criterion of multiparity was not present. This is in line with the observations of Riethmeller *et al.* who found two cases of GO in older, infertile women without IUDs [11]. According to Grall [2], parity does not seem to play a role, because out of his 4 cases, he found 2 cases in second-gestational women and 2 cases in multigestational women, *i.e.* 50%; Philippe [10] states that multiparous women carry GO in 73% to 84% of cases. The authors' opinions are therefore divided.

Clinically, the diagnosis of an ectopic pregnancy is suspected on the basis of different signs in the first, second and third trimester. It should be noted, however, that it is clinically difficult to suspect a particular ovarian pregnancy and even more difficult to diagnose a mummified ovarian pregnancy. The diagnosis is almost always confirmed by paraclinics, in particular ultrasound and laparoscopy. However, ultrasound diagnosis is still difficult [12]. This was confirmed in our case. Indeed, the signs did not allow us to suspect an ectopic, ovarian pregnancy. Ultrasound did not allow the diagnosis to be established either. It was laparoscopy that made it possible to make the diagnosis with the demonstration of fetal bone compounds trapped in the ovary. The clinical symptomatology is without great particularity, abdominal pain, delayed menses and metrorrhagia are the most frequently presented [5] [13]. The pain corresponds to the rupture of the ovarian capsule by the GO and the formation of hemoperitoneum [7] [14]. Patients are most often seen in an emergency context, with significant hemoperitoneum or even in a state of hypovolemic shock [14]. However, other circumstances have been reported, such as that of Pan *et al.* An original case of GO in a clinical picture of adnexal torsion has been reported [15]. Similarly, very rare observations after inter-annexal hysterectomy have been reported [10] [13].

In our case, the patient did not present any signs that could suggest an ectopic pregnancy. A blood B-HCG level returned to normal after the operation, which we explained by the fact that the foetus and its appendages were calcified and the dead syncytiotrophoblasts could no longer secrete beta-HCG. The pregnancy would have occurred before the reported two-week amenorrhoea. IRM is also used in countries with large medical resources.

Depending on the location of the ovarian pregnancy, it will develop at the expense of the right ovary. GO according to Spiegelberg [8] is characterized by its usual occurrence in the right side, due to the fact that:

- 1) the normal size of the right ovary (16 mm × 19 mm) is much smaller than

that of the left ovary (35 mm × 18 mm); 2) part of the parenchyma of the right ovary often develops into a cystic cavity; 3) the wall of this cavity and the ovary have the same histological structure, in this cavity the remains of fetus and placental remnant is usually found. This last observation was made in our case. The right ovary was irregularly shaped with an elevation of the shell suggesting a microcyst. The opening of the small mass allowed the individualisation of bony structures corresponding to the forearm with the calcified hand and other less distinct structures.

4. Conclusions

Ovarian pregnancy, a rare situation, can mummify and go unnoticed. It can be discovered fortuitously during the exploration of an unexpected situation such as primary infertility. An ovarian pregnancy can mummify and remain asymptomatic for a long time. Its diagnosis remains difficult and requires important material means. Parity is not a predisposing risk factor. There are ovarian pregnancies in our hospital and perhaps most of them have gone unnoticed.

A lesson to learn:

- An endo-vaginal ultrasound is essential for any infertility investigation, as it allows a better exploration of the ovaries.
- A normal beta-HCG level does not rule out an ectopic pregnancy; any morphological abnormality, however small, on laparoscopy requires a thorough investigation, including a sample for anaphylaxis if necessary.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- [1] Gaubert, P., Dufour, P., Devisme, L., *et al.* (1999) Ovarian Pregnancy: About an Observation. *La Presse Médicale*, **28**, 2103.
- [2] Grall, J. and Jacques, Y. (1978) Ovarian Pregnancy: About Four Cases. *Revue Française de Gynécologie*, **73**, 139-145.
- [3] Sergent, F., Mauger-Tinlot, F., Gravier, A., *et al.* (2002) Ovarian Pregnancies: Reassessment of Diagnostic Criteria. *Journal of Gynecology Obstetrics and Human Reproduction*, **31**, 741-746.
- [4] Shahabuddin, A. and Chowdhury, S. (1998) Primary Term Ovarian Pregnancy Superimposed by Intrauterine Pregnancy: A Case Report. *Journal of Obstetrics and Gynaecology Research*, **24**, 109-114. <https://doi.org/10.1111/j.1447-0756.1998.tb00060.x>
- [5] Ercal, T., Cinar, O., Mumcu, A., *et al.* (1997) Ovarian Pregnancy: Relationship to an Intrauterine Device. *The Australian and New Zealand Journal of Obstetrics and Gynaecology*, **37**, 362-364. <https://doi.org/10.1111/j.1479-828X.1997.tb02434.x>
- [6] Hebertsson, G., Magnusson, S.S. and Benediktsdottir, K. (1987) Ovarian Pregnancy and IUCD Use in a Defined Complete Population. *Acta Obstetrica et Gynecologica Scandinavica*, **66**, 607-610. <https://doi.org/10.3109/00016348709022065>

- [7] Riethmuller, D., Sautière, L., Benoit, S., *et al.* (1996) Ultrasonic Diagnosis and Laparoscopic Treatment of an Ovarian Pregnancy: A Case Report and Review of the Literature. *Journal of Gynecology Obstetrics and Human Reproduction*, **25**, 378-241.
- [8] Chahtane, A., Dehaymi, M., Rhrab, B., *et al.* (1993) Ovarian Pregnancy: About 14 Observations with Review of the Literature. *Revue Française de Gynécologie Obstétrique*, **88**, 35-38.
- [9] Philippe, E., Renaud, R., Dellenbach, P., *et al.* (1987) Ovarian Pregnancy of 32 Cases. *Journal of Gynecology Obstetrics and Human Reproduction*, **16**, 901-908.
- [10] Cabero, A., Laso, E., Lain, J.M., *et al.* (1989) Increasing Incidence of Ovarian Pregnancy. *The European Journal of Obstetrics & Gynecology and Reproductive Biology*, **31**, 227-232. [https://doi.org/10.1016/0028-2243\(89\)90157-3](https://doi.org/10.1016/0028-2243(89)90157-3)
- [11] Beugre, N. (1993) Epidemiological and Anatomical-Pathological Study of Ectopic Pregnancies: About 59 Cases. Specialisation Thesis in Gynaecology and Obstetrics, Abidjan.
- [12] Raziell, A., Schachter, M., Morderchar, S., *et al.* (2004) Ovarian Pregnancy a 12-Year Experience of 19 Cases in One Institution. *The European Journal of Obstetrics & Gynecology and Reproductive Biology*, **114**, 92-96. <https://doi.org/10.1016/j.ejogrb.2003.09.038>
- [13] Grimes, H., Nosal, R. and Gallagher, J. (1983) Ovarian Pregnancy: A Series of 24 Cases. *Obstetrics & Gynecology*, **61**, 174-180.
- [14] Pan, H., Huang, L., Lee, J., *et al.* (2004) Ovarian Pregnancy Torsion. *Archives of Gynecology and Obstetrics*, **270**, 119-121. <https://doi.org/10.1007/s00404-002-0407-3>
- [15] Bouzid, F., Cellami, D., Baati, S., *et al.* (1996) Abdominal Pregnancy. *French Journal of Gynaecology and Obstetrics*, **91**, 616-618.