ISSN: 0975-8585

Research Journal of Pharmaceutical, Biological and Chemical Sciences

Case Report: A Rare Case of Primary Ovarian Pregnancy

Hemant Deshpande[1], Shilpa Chaudhari[2]*, Chandrakantmadkar[3], Charusheela Gore[4], and Poorva Deshpande [5]

[1]Professor & HOD, Dept of OBGY, Padmashree Dr.D.Y.Patil Medical College and Research Centre, Pimpri, Pune, India
[2]Professor, Dept of OBGY, Padmashree Dr.D.Y.Patil Medical College and Research Centre, Pimpri, Pune, India
[3]Associate Professor , Dept of OBGY, Padmashree Dr.D.Y.Patil Medical College and Research Centre, Pimpri, Pune, India
[4] Professor, Dept of Pathology, Padmashree Dr.D.Y.Patil Medical College and Research Centre, Pimpri, Pune, India
[5]Resident, Dept of OBGY, Padmashree Dr.D.Y.Patil Medical College and Research Centre, Pimpri, Pune, India.

ABSTRACT

Primary ovarian pregnancy occurs very rarely, its incidence being almost 1 to 3% of all ectopic gestations. We present a rare case of a second gravida diagnosed with a ruptured ectopic pregnancy but who had intra operative and histopathological diagnosis of a primary ovarian pregnancy.
Keywords: ovarian pregnancy, sonography

Corresponding author

ISSN: 0975-8585

INTRODUCTION

Primary ovarian pregnancy was first described by St. Maurice in 1689. [1] Incidence of ovarian pregnancy varies from 1 in 7000 to 1 in 60,000 deliveries and accounts approximately 1 to 3% of all ectopic gestations. [2] Intrauterine Contraceptive Device, ovulation induction drugs, Assisted Reproductive Techniques have led to an increased incidence of ovarian pregnancy.[3]The clinical presentation of ovarian pregnancy varies with some mimicking ovarian tumors while others ectopic tubal gestation.[4] Among all extra uterine gestations diagnosis of an early ovarian pregnancy is the most difficult.[5] Persistent pelvic pain , a symptom not always related to its cause is the most frequent manifestation of an ovarian pregnancy.[6] However in literature there have been sporadic reports of ovarian pregnancy progressing to term.[5]

Case Report

Mrs. X; a gravida 2 , para 1, with one living issue, was referred to a hospital and medical college in Pune. She gave a history of one and a half month of amenorrhea with complaints of pain in the abdomen on and off, associated with syncope attacks since two days. She was admitted and her symptoms seemed to worsen after admission. She gave no significant positive history of per vaginal spotting or bleeding. She was unsure of the last date of her last menstrual period and she had regular menstrual cycles prior to this. She has been married since six years. Her past, personal and family history was not contributory to the history.

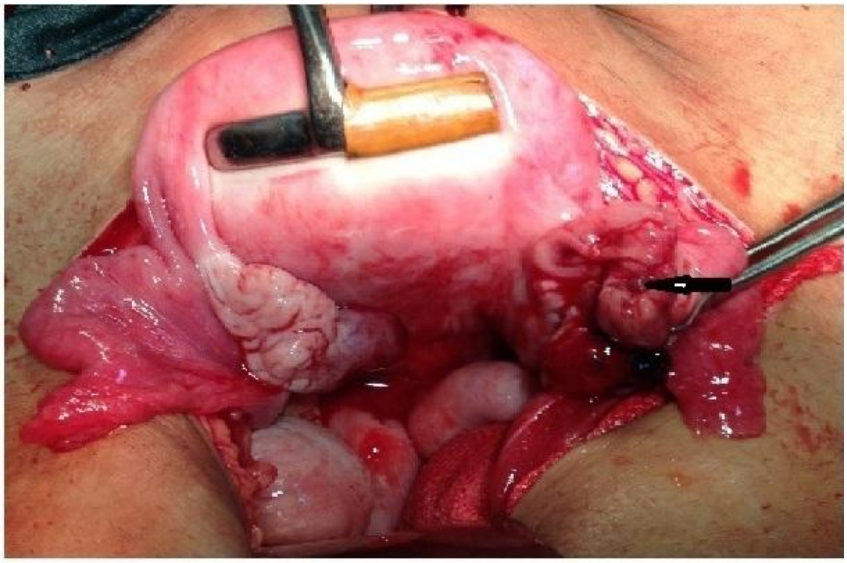
Her general condition was fair; with a pulse rate of 118 beats/minute and a blood pressure of 90/70 mm of Hg. General Examination revealed severe pallor. On systemic examination, there was no evident abnormality in the respiratory or cardiovascular system. On local examination; her abdomen was distended with minimal tenderness and guarding over the lower abdomen. On per vaginal examination; the uterus was anteverted, ante flexed, of normal size and the external so of the cervix was closed. There was no cervical motion tenderness. The examination of the right fornix revealed a mass of approximately 6 X 5 cm that had restricted mobility. There was tenderness elicited in the right fornix, while the left fornix appeared normal. There was a distinct fullness in the Pouch of Douglas.

Her hematological investigations demonstrated a hemoglobin level of 6.2 gm% and her blood group was ‘O’ Rh Positive. Her urinary pregnancy test was positive. She was non-reactive towards Human Immunoviral markers and Syphilis markers and tested negative for Hepatitis B Australia Antigen. Her coagulation profile, renal function tests and liver function tests were within normal limits. Her ultrasonography showed a 6.3 X 4.2 cm mass in the right adnexal region with no evidence of an intra-uterine gestational sac. Ultrasonography of the pelvis revealed free fluid in Morrison’s pouch and in both paracolic gutters. All these investigations suggested the possibility of a ruptured tubal ectopic pregnancy.

The patient was taken up for an exploratory laparotomy. Her intraoperative findings revealed the presence of a hemoperitoneum with a collection of approximately 500ml. The uterus was of normal size and there was no evidence of a rent in either of the fallopian tubes. The examination of the right ovary revealed the presence of an ectopic gestational

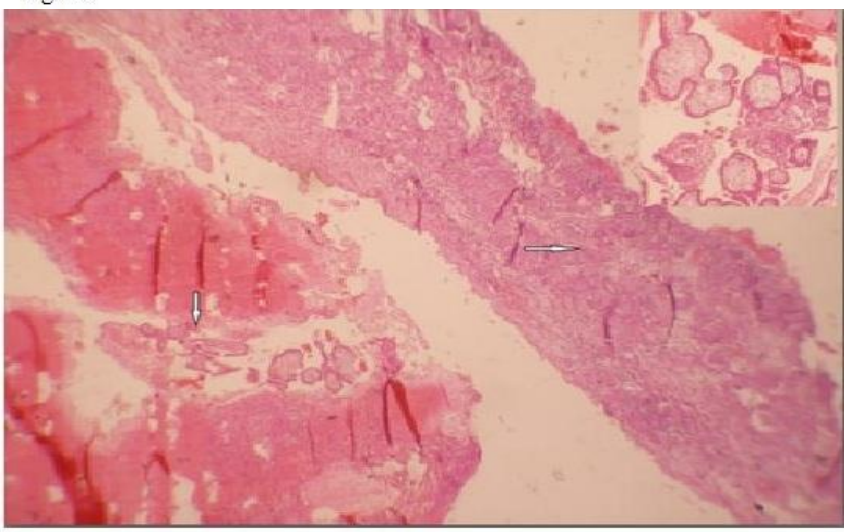
ISSN: 0975-8585

sac with bleeding originating from the right ovary. The sac was excised and sent for histopathological examination and confirmation of the diagnosis. The ovary was repaired with Vicryl no. 0 and adequate haemostasis was achieved before closure.



black arrow showing right sided ovarian ectopic sac .both follopian tubes normal in size and shape no abnormility detected .

figurel



The microphotograph showing ovarian tissue(Right arrow) and chorionic villi (Down arrow).
The Inset Shows closer view of chorionic villi showing syncytiotrophoblasts and cytotrophoblasts.
(H & E. 100 X)

Figure II

In the post-operative period; the patient was transfused with four units of whole blood and two units fresh frozen plasma. Her post-operative recovery was uneventful and she was discharged on the seventh post-operative day. Histopathological examination of the sample sent, confirmed the presence of a primary right ovarian pregnancy, according to Spielberg's criteria.

DISCUSSION

Primary ovarian pregnancy is an extremely rare ectopic pregnancy, which in most cases present with early hemorrhage and rupture, in early gestation period with adnexal pain and hemoperitoneum, due to trophoblastic invasion and vascularity of ovary. [7] Because tubal ectopic gestation is more common, such cases are usually misdiagnosed as ruptured tubal ectopics and our case presented in a similar manner. In present era of advanced imaging techniques particularly transvaginal ultrasonography (TVUS) it is possible to suspect ovarian pregnancy at an early gestation. TVUS signs are suggested by Leach & Ory as intraovarian gestational sac, live embryo within ovary, complex adnexal mass with non visualization of ipsilateral ovary & haemoperitoneum.[8]Irrespective of the site of ectopic, further management remains same that is exploratory laparotomy or laparoscopy. In our patient we tried optimally to conserve the affected ovary and achieved haemostasis and as she had 500ml of hemoperitoneum along with clots with clinical manifestation of sever pallor we transfuse her with 4 blood and 2 fresh frozen plasmas.

The diagnosis of this condition is usually made intraoperatively based on the four Spiegelberg criteria. [9] The final diagnosis is made only after a definitive histopathological report.[6] Borrow classified the primary ovarian pregnancy depending on the position of the gestational sac as extrafollicular and intrafollicular.[10] The extrafollicular further was sub classified into juxtafollicular, cortical, interstitial & superficial. All primary ovarian pregnancies are essentially intrafollicular, as in our case it was a intrafollicular ovarian pregnancy. [6]

Causes of ovarian pregnancy can be attributed purely to chance. [10] Some hypotheses suggest an inflamed tunica albuginea of ovary or when ovum is not released from ruptured follicle or improper functioning of tubes can cause ovarian pregnancy. [10] In our case no associated causes predisposing to ovarian pregnancy were found.

Transvaginal sonography signs as suggested by Leach and Ory should always be ruled out while screening any ectopic. [8] Medical treatment of choice is methotrexate therapy, if it fulfills the necessary criteria, which were not possible in our case. As per study of Heldel and colleagues, wedge or partial resection & repair is adequate to control bleeding from ovary , as we did.[11]

CONCLUSIONS

All suspected cases of tubal pregnancy should be screened by experienced sinologist or gynecologist experienced in sonography using High resolution ultrasound with color or power Doppler capability. At the same time the obstetrician must always keep this possibility at the back of his/her mind when dealing with an ectopic pregnancy. Patient must be counseled that ovarian pregnancy will not affect her future fertility as normal ovary can function at optimum level and affected ovary if preserved with good reservoir of ovarian tissue will produce ovum, ovarian hormones.

REFERENCES

[1] Farrell DM, Abrams J. Med J Malaysia 1987; 42:70-1.
[2] Hallat J. Am J Obstet Gynaecol 1982; 143:50-60.

[3] Das S, Kalyani R, Lakshmi V, Harendra Kumar ML. Indian J Pathol Microbiol 2008; 51:37-38.
[4] Tjalma WA, Tjalma AA. Clin Exp Obstet Gynecol 2003; 30:122-124.
[5] Belfar H, Heller K, Edelstone DI, Hill LM, Martin JG. J Ultrasound Med 1991; 10:465-467.
[6] e Linde's Operative Gynecology, Lippincott Wilkins and Williams , John A Rock, Howard W Jones III .Ectopic Pregnancy. Mark A Damario. 10th edition; 2009: pp 817-8.
[7] Bayless RB. Nontubal ectopic pregnancy. Clin Obstet Gynecol 1987; 30:191-199.
[8] Richard E Leach, Steven J O. Manangement of ectopic pregnancy; 2000: pp 101.
[9] Spiegelberg O. Archiv fur Gynaekologie. 1873; 13:73-76.
[10] Borrow RC, McElin TW, West RH, Bukingham JC. Am J Obstet Gynecol 1965; 91:1095-6.
[11] Helde MD, Campbell JS, Himaya A, Nuyens AJ, Cowley FC, Hurteau GD. Can Med Assoc J 1972 Feb 5; 106(3):237-42.