International Journal of Science and Research (IJSR)
ISSN: 2319-7064
SJIF (2020): 7.803

A Rare Case of Report of Ruptured Ovarian Ectopic Pregnancy

Sukalyan Halder[1], Himadri Bhuyan[2]

Abstract: ***Background: Ovarian pregnancy is a rare yet potentially fatal form of non-tubal ectopic pregnancy and it ends with rupture. Its incidence is on rise due to increased use of intra uterine devices, ovulation inducing drugs and assisted reproductive technology etc. Definitive pre-operative diagnosis is very challenging as clinical and sonological findings often mimic that of tubal ectopic, corpus luteal cyst or endometriotic cyst. Case: We aim to present a case of young, naturally conceived fifth gravida woman with h/o previous LSCS presented with lower abdominal pain, bleeding per vaginum along with 2 months amenorrhea was provisionally diagnosed as ruptured tubal ectopic pregnancy and was taken up for laparotomy, later ruptured ovarian ectopic pregnancy was diagnosed intra-operatively and was confirmed histo-pathologically. Conclusion: Due to its bizarre presentation and rare incidence the early diagnosis and appropriate management of ovarian ectopic is crucial which can lead to significant reduction in maternal morbidity and mortality.***

Keywords: ovarian ectopic, laparotomy, oophorectomy

1. Introduction

An ectopic pregnancy (EP) refers to the implantation of a pregnancy outside of the uterus cavity with a overall rate of EP is 1–2%[1].Ovarian ectopic pregnancy(OEP) refers to an ectopicpregnancy that is located in the ovary and is a rare entity comprising of 0.15 to 3% of ectopic gestations [2]but it is considered the most common non tubal ectopic pregnancy and is an important cause of severe maternal morbidity and maternal mortality, which roughly corresponds to 1 in 7000 to 1 in 40000[3]. Rare occurrence and clinical presentation that often mimic other form of pelvic pathology in young reproductive age women namely disturbed tubal ectopic, ruptured corpus luteal cyst or endometriotic cyst etc.; often make the diagnosis of ovarian ectopic a difficult one.[4,5,6]. Diagnosis of ovarian ectopic pregnancy is intricate, based upon intra-operative surgical findings and histopathological observations. German physician Otto Spiegelberg, in the year 1878 established four criteria for the diagnosis of ovarian ectopic. These are - 1) fallopian tubes, including fimbria, must be intact and separate from the ovary, 2) The pregnancy must occupy the normal position of the ovary, 3) The ovary must be attached to the uterus through the utero-ovarian ligament, and 4) There must be ovarian tissue attached to the pregnancy in the specimen.[7] Unfortunately, these are surgical criteria—none of these criteria can be established by ultrasonography. These criteria are still now well accepted by most of the institutions.

2. Case Report

Patient Mrs. X, 28year old (G5P2L2A2) presented in our Emergency with complains of pain abdomen and spotting per vagina for one day along with cessation of menses for two months. Her menstrual cycles were regular .She had previous history of two spontaneous abortions followed by once normal delivery and last child birth 9 months back by caesarean section for breech. She was still lactating. Patient had no past history of STD, PID, any tubal surgeries or contraceptive usage. On examination patient was hemodynamically stable and mild pallor was noted. Her systemic examination was unremarkable. UPT was positive. Mild tenderness was elicited in hypogastrium and in right iliac fossa on deep palpation. Per speculum examination revealed minimal dark colored blood in external os. Per vaginum examination, uterus was anteverted and normal in size, cervical motion tenderness was present, POD was obliterated, bilateral adnexa no mass felt. Urgent USG TVS was done which showed minimal fluid in POD, with no intra uterine gestational sac. Serum beta HCG was sent which was 2427mIU/ml. Subsequently patient developed tachycardia, giddiness, with tenesmus. So decision for culdocentesis was taken which showed non-clotted hemorrhagic fluid in POD and patient was immediately taken up for exploratory laparotomy along with resuscitative measures in view of ruptured ectopic pregnancy.

Intra operative findings

Abdomen was opened through conventional Pfannenstiel incision. On opening the peritoneum, hemoperitoneum of approximately 2Litres was drained. Moderate adhesions seen between uterus and anterior abdominal wall. Uterus normal size and shape. Right sided tube dilated, inflamed and engorged, there was a breech on the surface of the ovary with active bleeding. Contralateral side tube and ovary was normal. Right sided salpingo-ovariotomy done. Left sided tubal ligation was done.

Post-operative period of the patient was uneventful and had a speedy recovery. Patient was discharged on post -operative day 7.On table diagnosis of ruptured primary ovarian ectopic was made as she fulfilled all four points of Spiegelberg criteria, later diagnosis was confirmed by histo-pathologically.

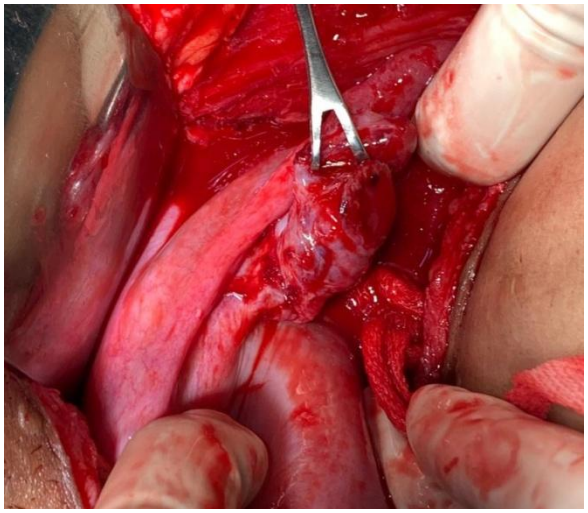

Figure 1: Right Ovary was enlarged and showed a breech on the surface with an active bleeder on rupture surface of ovary

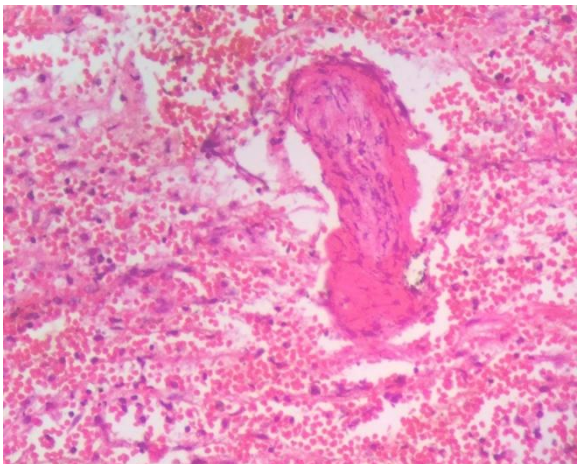

Figure 2: Sheets of trophoblastic cells and few synctioblastic giant cells (H&E stain 10x)

3. Discussion

It was first reported by French physician Saint Maurice in the year 1682.[8]Ovarian ectopic is a potentially life-threatening condition and its early detection is very difficult compared with other forms of extrauterine gestation. Ovarian ectopic pregnancy occurs when a fertilized ovum gets implanted on the surface of the ovary. This can broadly be categorized into primary and secondary. The primary OEP occurs due to ovulatory dysfunction when ovum is fertilized while still within the follicle before the follicle is being expelled from the ovary. Secondary ovarian ectopic occurs when fertilization takes place within the fallopian tube and later the fertilized ovum moves retrograde manner and implanted over the ovarian stroma.[9]

The incidence of primary ovarian ectopic is on increasing trend. Though the pathophysiology of primary ectopic pregnancy is poorly understood: but following risk factors maybe responsible for its rising trend. These are traditional risk factors like – a) Increased use of IUCDb) Advent in ovulation induction and ART, IUI etc.c) Genital infections like chronic PIDd) Endometriosis / salpingitis (mainly in developing countries)e) Previous ectopic pregnancyf) Previous tubal surgery e.g. sterilization etc.g) advanced maternal age, multiparity, rarely infertility.[10]Symptoms of primary ovarian ectopic may vary from missed periods with mild abdominal pain to intra peritoneal hemorrhage, bleeding per vaginum, shock, maternal collapse. It is a life-threatening condition where the fertilized ovum gets buried into the site where there occur anastomoses between uterine and ovarian arteries. Rupture of which results in profuse intra peritoneal bleeding and rapidly deteriorating maternal condition[11]. TAS and even TVS most of the time misdiagnose ovarian ectopic for ruptured ovarian cyst, endometriotic cyst, tubal ectopic etc.

Surgery remains the best method for diagnosis and confirmation done by histo-pathological observationsThe preferred surgical techniques include wedge resection of the ovary and suturing of the remaining ovarian tissue.[12,]Many a times oophorectomy or salpingo-oophorectomy maybe required when the diagnosis is made late accompanied by intra-peritoneal hemorrhage.. Treatment is typically surgical, though there are well documented cases noted with successful medical management. The medical management with injection methotrexate can be tried in cases where OEP is diagnosed at much earlier stages, low serum beta HCG and hemodynamically stable patients.[13]

4. Conclusion

Although OEP is a rare event, awareness of this condition is important for timely recognition and early referral. Thus, clinicians should always have a high index of suspicion in females coming in their reproductive age group with complaints of pain abdomen with or without any bleeding per vaginum. Early diagnosis helps in reducing the maternal mortality and morbidity. In this patient the ovarian ectopic had ruptured and the only option was to do salpingo – ovariotomy of the affected side.

References

[1] Barnhart KT. Clinical practice. Ectopic pregnancy. N Engl J Med. 2009 Jul 23;361(4):379-87. doi: 10.1056/NEJMcp0810384. PMID: 19625718.
[2] Kohli UA, Sood AK, Sinha A, Magdum H, Dey M. A Case of Primary Ovarian Pregnancy. *Int J Biomed Adv Res.* 2014; **5**(8): 381
[3] Nwanodi O, Khulpateea N. The preoperative diagnosis of primary ovarian pregnancy. J Natl Med Assoc. 2006 May; 98(5):796-8. PMID: 16749658; PMCID: PMC2569290.
[4] Ghi T, Banfi A, Marconi R, Iaco PD, Pilu G, Aloysio DD, Pelusi G. Three-dimensional sonographic diagnosis of ovarian pregnancy. Ultrasound Obstet Gynecol. 2005 Jul;26(1):102-4. doi: 10.1002/uog.1933. PMID: 15971283.,
[5] Einenkel J, Baier D, Horn LC, Alexander H. Laparoscopic therapy of an intact primary ovarian pregnancy with ovarian hyperstimulation syndrome: case report. Hum Reprod. 2000 Sep;15(9):2037-40. doi: 10.1093/humrep/15.9.2037. PMID: 10967011
[6] Bontis J, Grimbizis G, Tarlatzis BC, Miliaras D, Bili H. Intrafollicular ovarian pregnancy after ovulation induction/intrauterine insemination:

pathophysiological aspects and diagnostic problems. Hum Reprod. 1997 Feb; 12(2):376-8. doi: 10.1093/humrep/12.2.376. PMID: 9070729]

[7] Speert, H. (1958). *Otto Spiegelberg and His criteria of Ovarian Pregnancy, in Obstetric and Gynecologic Milestones*. New York: MacMillan. p. 255ff

[8] Farell DM, Abrams J. Primary ovarian pregnancy; report of a case. *Med J Malaysia.* 1957; **42**: 70-1

[9] A rare case of a ruptured ovarian pregnancy. *Proceedings in Obstetrics and Gynecology.* : 1-5

[10] Roy J, Sinha Babu A. Ovarian pregnancy: Two case reports. Australas Med J 2013;6(8):406-14

[11] Hertig, A.T. (1951). Discussion of Gerin- Lojoie L. Ovarian pregnancy. Am. J. Obstet. Gynaecol., 62: 920

[12] Patel Y, Wanyonyi SZ, Rana SF. Laparascopic management of an ovarian ectopic pregnancy: case report. *East Afr Med J.* 2008;85:201–204

[13] Di Luigi G, Patacchiola F, La Posta V, Bonitatibus A, Ruggeri G, Carta G. Early ovarian pregnancy diagnosed by ultrasound and successfully treated with multidose methotrexate. A case report. *Clin Exp Obstet Gynecol.* 2012;39:390–393.