

## Rare Case of Ovarian Pregnancy Managed with Laparoscopy

Sheila Mehra, Hemangi Negi, Manju Hotchandani, Indubala Khatri

### Abstract

Ovarian pregnancy is a rare form of ectopic pregnancy but most common of the non tubal ectopic pregnancy. One of the risk factor for ovarian pregnancy is the use of IUCD. We report one such uncommon case.

### Key words

Ovarian pregnancy, IUCD, Laparoscopy

### Introduction

Ovarian ectopic is a rare variant of ectopic implantation. Its incidence has been reported as varying from 1 in 7000 to 1 in 40,000 deliveries and accounting from 0.5% to 1% of all ectopic pregnancies. One in every 9 ectopic pregnancies among intrauterine contraceptive device (IUCD) users is an ovarian pregnancy (1,2).

### Case summary

Mrs. S.J. 28 year old female P2A1 presented on 14-04-2001 with h/o severe pain in abdomen, weakness and giddiness. Her last menstrual period (LMP) was 15-03-2001. She gave the history of IUCD use since 1 year which was removed on 28-03-2001. Since the day of IUCD removal, she had spotting off and on. On 14-04-2001, she had severe pain in abdomen and feeling of giddiness. Her urine for pregnancy test was done, it was positive.  $\beta$ HCG level was 586mIU/ml. On examination her general condition was stable with the pulse rate of 82/mt and B.P. 130/80 mmHg. On P/A examination there was no tenderness. On P/V

examination, uterus was bulky, soft, tender on movement, both the fornices were tender. She was subjected to pelvic scan which showed a right adnexal mass and free fluid in pelvis. In view of the above findings, a diagnosis of ectopic pregnancy was made. Her haemodynamic condition was stable, so she was taken up for laparoscopy. Pncumoperitoneum was created and 3 port laparoscopy was done. On introducing the camera, per-operative findings were: there was approximately 500 ml of collected blood along with blood clots in the peritoneal cavity. The right ovary was enlarged, cystic with a haemorrhagic cyst. Both tubes were apparently normal with no evidence of ectopic pregnancy. Uterus was normal looking. The cyst was punctured with bipolar electrode and on bringing the camera near the operative field, haemorrhagic fluid with material which looked like trophoblastic tissue was seen to be coming out of the punctured cyst and thus a diagnosis of ovarian pregnancy was made. All haemorrhagic mass was sent for histopathological examination. Thorough

From the Department of Obstetrics and Gynaecology, Mool Chand Kharati Ram Hospital, New Delhi-India.

Correspondence to : Dr. Shiela Mehra, C-557, Defence Colony, New Delhi-110024.



abdominal lavage was done. Recovery of the patient was uneventful and she was discharged on the 2nd post operative day. The histopathology report showed ovarian tissue containing a corpus luteum and haemorrhagic fragments containing chorionic villi. Ovary contained products of conception thus confirming the diagnosis of ovarian pregnancy (Fig. 1.)



Fig 1. Showing ovarian tissue containing a corpus luteum and haemorrhagic fragments containing chorionic villi.

### Discussion

Our patient fulfils the criteria for diagnosis of ovarian pregnancy as outlined by Spiegelberg i.e. ipsilateral tube should be intact and separate from the ovary, the sac must occupy the position of the ovary, it must be attached to the uterus by ovarian ligament and ovarian tissue must be demonstrated in the wall of the sac.

This case confirms the strong association of IUCD with increased risk of ovarian pregnancy as put forth by Lehfeldt study which says that IUCD prevents intra uterine implantation in 99.5%, tubal implantation in 95% and none at all in ovary. The ratio of ovarian and tubal pregnancy in IUCD users is 1:9(3) whereas in non IUCD users it is 1:150-200 and unlike tubal gestation, ovarian pregnancy is neither associated with PID nor infertility but occurs in patients with good fertility, nulliparity and younger age group. In our patient, there was no evidence of PID although she was multiparous and young. Patients have symptoms as in ectopic pregnancy at other sites. Ovarian pregnancy can be confused with ruptured corpus

luteum in 75% of cases(1). In our patient, it was confused during the operation, but on puncturing the ovary, when trophoblastic tissue was seen coming out of the ovary, the diagnosis of ovarian pregnancy was made. Chronic pelvic pain alone is the most frequent clinical manifestation of an ovarian gestation. Although an adnexal mass may be palpable on examination, it may be confused with a leaking corpus luteal haematoma.

The diagnosis of an ovarian ectopic pregnancy is rarely made before surgery as in this case. It usually presents as an acute emergency. On investigating,  $\beta$ HCG titres would be in the range of ectopic pregnancy. Ultrasound is valuable in ectopic pregnancy in diagnosing adnexal mass, tubal pregnancy but can diagnose only an advanced ovarian pregnancy when gestational sac is seen. On laparoscopy, it is confused with corpus luteal cyst as in our case. A positive  $\beta$ HCG with a haemorrhagic mass in ovary must give rise to suspicion of ovarian pregnancy. Diagnosis is suspected during laparoscopy or laparotomy and confirmed by histopathology (4,5).

The management of ovarian pregnancy should be by wedge resection of the haemorrhagic portion of the ovary. Only rarely the haemorrhage is profuse that oophorectomy is required to control the bleeding. Prognosis of conservative procedure is excellent and future outcome of the patient as regards fertility is good.

### References

1. Hallett JG. Primary ovarian pregnancy. A report of 25 cases. *Am J Obstet Gynecol* 1982;143:50-60.
2. Grimes H, Nosal RA, Gallagher JC. Ovarian pregnancy. A series of 24 cases. *Obstet Gynaecol* 1983; 61:174-80.
3. Sandvick, Sandstad E, Steier JA. Ovarian pregnancy associated with the intrauterine contraceptive device. *Acta Obstet Gynaecol Scand* 1987;66:173-81.
4. S Nadarajah, LN Sim, SF Loh. Laparoscopic management of an ovarian pregnancy. A case report. *Singapore Med J* 2002 43(2): 95-96.
5. Seiner P, Gregario A, Aristo R, et al. Ovarian pregnancy & operative laparoscopy. A report of 8 cases. *Human Reprod* 1997;12:608-10.