

OVARIAN ECTOPIC PREGNANCY WITH IUCD IN SITU- A RARE CASE REPORT

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PRESENTATION OF CASE

Ovarian pregnancy is a very rare form of ectopic pregnancy.⁽¹⁾ It was first described in 17th century by Dr. Saint Monnissey. Incidence has been estimated around 0.5 - 3% of all ectopic pregnancies.⁽²⁾ Incidence has increased in recent years due to increase in diagnosis which can be attributed to availability of USG facility, more sensitive β -hCG assay, diagnostic laparoscopy and risk factors associated with overall ectopic pregnancies. Use of IUCD has been disproportionately associated with primary ovarian pregnancy with incidence range being 57 - 90%.⁽³⁻⁷⁾ Diagnosis is done by both surgical and histopathological observations.⁽⁸⁾ Usually, it ends in rupture in early stage.⁽⁹⁾ Classical management is surgical-wedge resection or oophorectomy. Medical management has been reported to be successful in few cases.

CLINICAL DIAGNOSIS

A 22 years old female P2L2 came in OPD with chief complaints of overdue menses for 23 days and mild pain lower abdomen since 7 days. She was hepatitis B + with history of IUCD application 2 years back and was found urine pregnancy test +. General examination was fair with normal vital parameters. On per abdomen, abdomen was soft and non-tender. On per speculum IUCD thread was visible and on per vaginal examination uterus was bulky soft with left adnexal mass of approximately 3 - 4 cm.

DIFFERENTIAL DIAGNOSIS

1. Tubal ectopic pregnancy
2. Incomplete abortion
3. Ruptured corpus luteal cyst
4. Germ cell tumours of ovary.

PATHOLOGICAL DISCUSSION

On USG, uterus was 8 x 3 cm with IUCD in situ. Left ovary contained a gestational sac like structure of 1.2 cm (6 weeks, 4 days) with a foetal pole of CRL - 6 weeks 2 days and foetal cardiac activity was present. There was increased vascularity around gestational sac. Right ovary was 2.2 x 1.7 cm.

All her routine investigations were within normal limits with Hb 11.2 g/dL. β -hCG was 181.80 mIU/mL. She was

planned for medical management single dose Inj. methotrexate 75 mg IM. On day 4, β -hCG 20331 mIU/mL and patient developed severe pain abdomen on left iliac fossa with normal vitals. Then patient was taken for Laparotomy. Around 200 mL of blood was seen intraperitoneally. There was ruptured left ovary with intact gestational sac in process of expulsion. Primary ovarian pregnancy was confirmed according to Spigelberg's four criteria: - 1. Intact fallopian tube on affected side; 2. Gestational sac should occupy the position of ovary on affected side; 3. Gestational sac should be connected to uterus by utero-ovarian ligament; 4. Ovarian tissue must be located in gestational sac wall.⁽¹⁰⁾ On HPE, ovarian pregnancy confirmed and endometrial tissue showed features of secretory endometrial glands with decidualised stroma.



Figure 1. TVS with Colour Doppler showing Ring of Fire Pattern in Ovary with Alive Embryo

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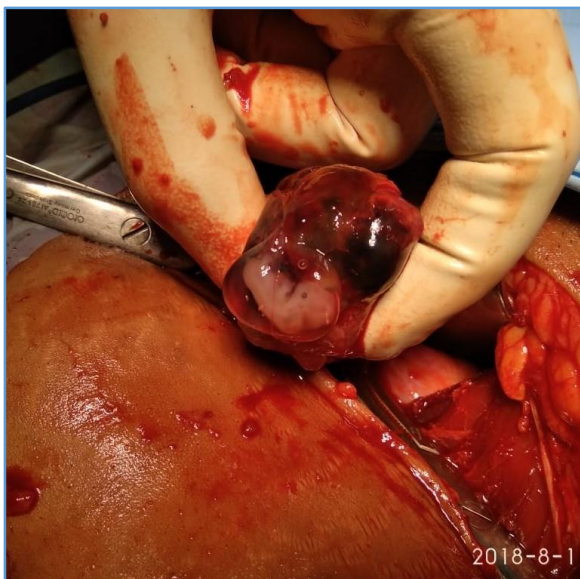


Figure 2. Intra-operative Picture showing Gestational Sac with Embryo

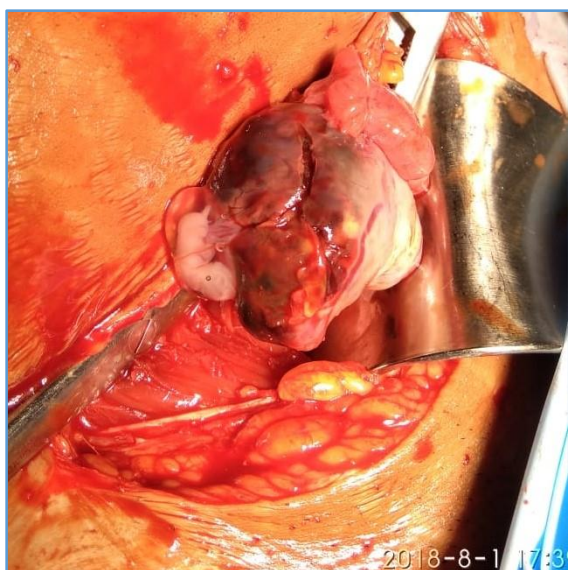


Figure 3. Intra-operative Picture showing Rupture in Ovary with Gestational Sac Hanging through the Rent

DISCUSSION OF MANAGEMENT

An ectopic pregnancy is characterised by implantation and development of embryo outside uterine cavity. Ovarian ectopic pregnancy incidence after natural conception ranges from 1 in 2000 to 1 in 60,000 deliveries and accounts for 3% of all ectopic pregnancies.⁽⁸⁾ Poor clinical symptomatology and difficult USG assessment makes its preoperative diagnosis difficult. Berger and Blechner documented that the ratio of ovarian ectopic pregnancy among women using an IUD to all ectopic cases is 1: 9; its prevalence in the general population is detected as 1: 150 to 200.⁽¹¹⁾ In our case too IUCD was in situ. It is believed that IUCDs trigger mild inflammation that disturbs the ciliary activity of the endosalpinx and leads to ovum transport delay and ectopic implantation.⁽¹¹⁾

Most common presenting symptoms include amenorrhoea, abdominal pain and vaginal bleeding like other ectopic gestations. In our case there was history of amenorrhoea and mild pain in lower abdomen on left side. On examination, an adnexal mass may be palpable in 60% of

cases. In our case, on examination there was mild tenderness in left iliac fossa and on per vaginal examination cervical motion tenderness was present with left adnexal tenderness.

Early diagnosis and treatment are very crucial for ectopic pregnancies that stands true for ovarian ectopic too, as it usually terminates by rupture in the first trimester leading to internal haemorrhage and hypovolemic shock status. There are reports of ovarian pregnancy continuing beyond and giving live birth.⁽¹²⁾ Evaluation of beta-HCG together with transvaginal USG is very important for early diagnosis.⁽¹³⁾

Management is mostly surgical either by wedge resection or ovariectomy. In recent years medical and conservative treatments have also been tried successfully to prevent ovarian tissue loss, pelvic adhesions and to preserve the patient's fertility. These include administration of mifepristone, parenteral prostaglandin F₂ α and methotrexate treatment for non-ruptured cases detected with USG or laparoscopy.⁽¹⁴⁻¹⁹⁾ In our case also we tried first medical management, but due to rupture we had to opt for more radical approach. The Royal College of Obstetricians and Gynaecologists recommends that women with ectopic pregnancy most suitable for methotrexate therapy are those with serum beta-HCG levels of 3000 IU/mL and with minimum symptoms (RCOG, 2001).

In the era of artificial reproductive techniques, ectopic pregnancies are not uncommon. Ovarian ectopic pregnancies have posed challenges in early pre-operative diagnosis due to subtle clinical findings and difficult USG interpretation. Though, surgery is the definitive management, but more conservative approaches are still being tried with promising results. Our chief goal is to obtain early pre-operative diagnosis with successful medical management.

FINAL DIAGNOSIS

Ovarian Ectopic Pregnancy with IUCD In Situ.

Abbreviations

IUCD- Intrauterine Contraceptive Devices
 USG- Ultrasonography
 OPD- Outpatient Department
 HPE- Histopathology
 HCG- Human Chorionic Gonadotropin
 CRL- Crown-Rump Length
 IM- Intramuscular

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