CASE REPORT

# Unusual ectopic-term pregnancy in the ovary; case report from Karachi

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## Abstract

Ectopic ovarian pregnancy is itself an uncommon type of ectopic pregnancy, representing only 0.15% of all ectopic pregnancies. Ovarian pregnancy with a live foetus at term is a rare condition.

The case of a 28 years old lady who delivered a term live baby from the right ovary is reported. Placenta was removed completely and placental blood supply was seen from right uterine artery. She was transfused 08 units of packed cells and 08 units of fresh frozen plasma during the surgery. She had an uneventful postoperative recovery.

**Keywords:** Ectopic pregnancy, Ovarian, Pregnancy, Diagnosis, Laparotomy, Caesarean section, Ultrasonography.

## Introduction

Ovarian pregnancy still remains a diagnostic challenge. There are very few reports of an accurate preoperative diagnosis, utilizing sonography. The correct diagnosis is most frequently made at the surgery and requires histo pathological confirmation.[1]

The incidence of ectopic pregnancy is on the rise due to increasing use of ovulation induction and assisted reproduction techniques.[2,3]

While foetus of ectopic pregnancy is typically not viable, very rarely a live baby has been delivered. Maternal mortality and morbidity is high as attempts to remove the placenta from organs to which it is attached usually lead to uncontrollable bleeding.

If placenta is attached with adnexa as seen in this case and receives blood supply from the right uterine artery or uterine fistula, it leads to a live foetus at term.

## Case Report

A 28 years old woman with previous caesarean section had conceived after taking treatment for ovulation induction. Her dating scan showed bicornuate uterus, one gravid horn with the other being empty and rudimentary. She presented with threatened miscarriage in 1st trimester, which was treated with progesterone. Mid trimester ultrasound showed an alive pregnancy with transverse lie and anterior wall Fibroid of 6.1x5.0cm.

Third trimester ultrasound showed an ill defined heterogeneous mass measuring 8x7cm along anterior wall of uterus and cervix covering the internal os with increased vascularity and one vessel traversing the myometrium. Findings were suggestive of succenturate /accessory lobe of placenta with suspicion of Accreta.

She had past surgical history of right ovarian cystectomy five years back and appendectomy in the previous year.

An Elective Caesarean delivery was planned at 37weeks because of persistent lower abdominal pain and decreased foetal movements. All the arrangements of blood and Fresh Frozen plasma were made and the general surgeon was kept as a stand by.

Operative findings showed double uterus like structure with a constriction in between with the foetus in the upper part, while lower part was hard and it was assumed to be a fibroid. An alive baby was delivered and placenta was completely expelled out.

When the anatomy was identified, the pouch from which

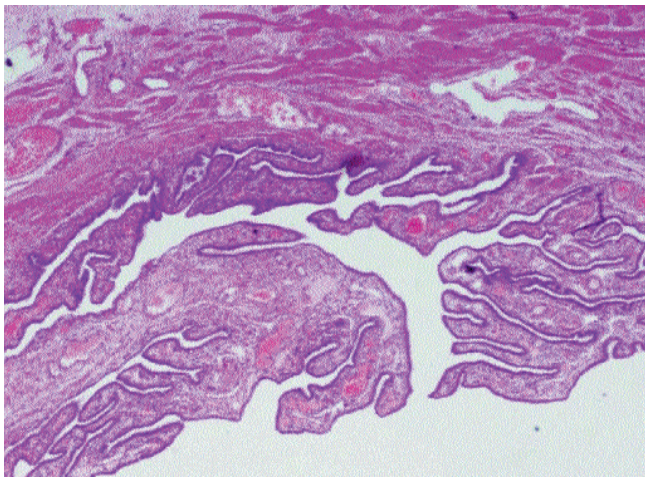

**Figure-1:** Histopathology slide showing fallopian tube.

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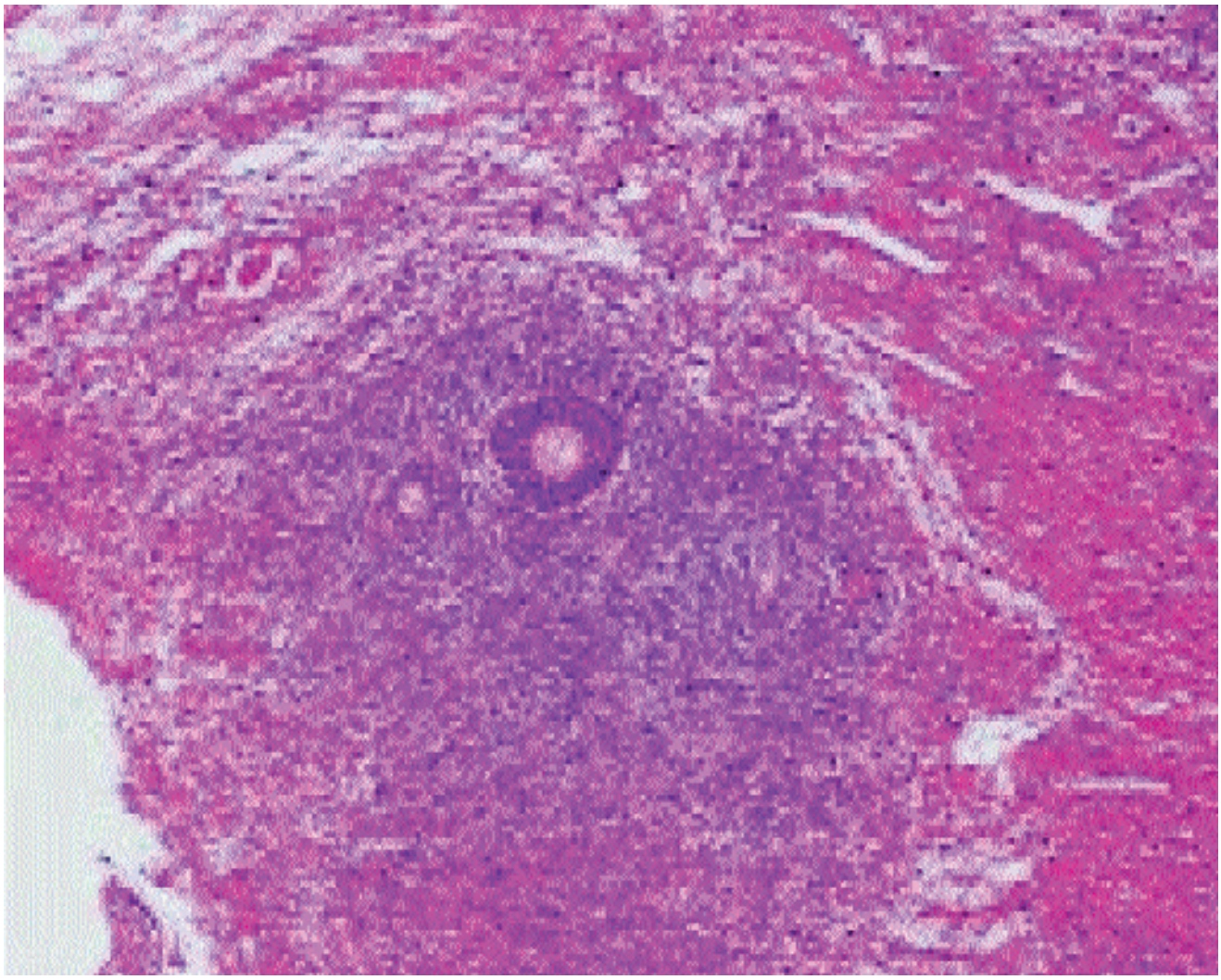

**Figure-2:** Showing presence of ovarian tissue along with chorionic villi.

the baby was delivered was attached on the right side and antero laterally to the uterus but as patient had history of cystectomy on the similar side, it was difficult to confirm the structure. The other tube and ovary were attached to lower part of the structure, which was the actual uterus. The structure was sent for histopathology, which confirmed the tissue as ovarian in origin.

The patient was transfused 8 units of packed cells and 8 units of fresh frozen plasma during the surgery.

The postoperative period was uneventful and the patient was discharged on 3rd postoperative day.

## Discussion

Ovarian pregnancy is a rare entity; the reported incidence being 1 in 25,000 pregnancies, of 0.5-3% of extra uterine pregnancies.[1] Dr. Saint Monnissey described the first reported case of ovarian pregnancy in 17th century. It is probably an accidental event with no predisposing features as compared to the tubal pregnancies.[1]

Management with laparoscopy or laparotomy is required in all cases, and in almost all cases, ovary can be preserved since implantation is usually superficial. As we step into an era where in vitro fertilization rate is on the rise, one should be aware that incidence of ovarian pregnancy is also increasing, necessitating a high index of suspicion.[2,3]

This incidence has increased substantially in recent years. This increase may be attributable to increase in the detection rate, with the evolution of transvaginal sonography, and an increase in various risk factors associated with ovarian pregnancy.[4]

A brief review of the literature revealed that primary ovarian pregnancy may occur without any classical antecedent risk factors, and endovaginal sonography can be useful to establish early preoperative diagnosis of ectopic ovarian pregnancy.[4]

In contrast to patients with tubal pregnancies, traditional risk factors, such as pelvic inflammatory disease and prior surgical procedure upon the pelvis, may not play a role in its etiology.[5]

Ovarian pregnancy is more frequent in ectopic pregnancies associated with the use of contraceptive intrauterine devices[6] unlikely seen in our case.

Risk factors for ovarian pregnancy include endometriosis sexually transmitted diseases, ovulation induction agents, tubal sterilization, intrauterine device use, and a history of abdominal surgery.[7]

Our patient conceived after taking medical treatment for ovulation induction. A similar case has also been reported in literature.[5]

Patient had mild abdominal pain and decrease foetal movements in third trimester. While in literature abdominal pain (83%) and vaginal bleeding is seen in half of the patients.[8]

An ovarian pregnancy is differentiated from tubal pregnancy by the Spiegelberg criteria[9] which includes;

1. The gestational sac is located in the region of the ovary.

2. The ectopic pregnancy is attached to the uterus by the ovarian ligament.

3. Ovarian tissue in the wall of the gestational sac is proved histologically.

4. The tube on the involved side is intact.

Our case meets all the four criteria, with the tube being confirmed on histopathology.

## Conclusion

Ovarian pregnancy is a rare variant of ectopic pregnancy, and an accurate preoperative diagnosis is very challenging. Diagnosis of ectopic pregnancy can be established during surgery by Spiegelberg criteria and confirmed by histopathologic examination.

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