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# A Rare Case of Heterotopic Pregnancy in Natural Conception with Ectopic Pregnancy

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A heterotopic pregnancy is a rare[1,2] complication of pregnancy in which both extra uterine (ectopic pregnancy) and intrauterine pregnancy occur simultaneously. It may also be referred to as a combined ectopic pregnancy, multiple sited pregnancy or coincident pregnancy. It was first reported in 1708 as an autopsy finding. The incidence was originally estimated on theoretical basis to be 1 in 30,000 pregnancies. However, more recent data indicate that the rate is higher because of assisted reproduction and is approximately 1 in 7000 overall and as high as 1 in 900 with ovulation induction[3,4]. The increased incidence of multiple pregnancy with ovulation induction and IVF increase the risk of both ectopic and heterotopic pregnancy. The hydrostatic forces generated during embryo transfer may also contribute to increased risk. There might be an increased risk in patients with previous tubal surgeries[5]. Heterotopic pregnancy can have various presentations. It should be considered more likely in the following cases: (a) after assisted reproduction techniques, (b) with persistent or rising chorionic gonadotrophin levels after dilatation and curettage for an induced or spontaneous abortion, (c) when the uterine fundus is larger than for menstrual dates, (d) when more than one corpus luteum is present in a natural conception, and (e) when vaginal bleeding is absent in the presence of signs and symptoms of ectopic gestation. Thus a high index of suspicion can help in timely diagnosis and appropriate intervention[6].

This is a rare case of heterotopic pregnancy in a 35 years old female with 8 weeks of amenorrhoea, with ectopic pregnancy.

## CASE REPORT

A 35 year old female with 8 weeks of amenorrhoea presented for MTP with laparoscopic tubal ligation. 8 week suction MTP done, products obtained and sent for histopathological examination. On laparoscopy there was haemoperitoneum with approximately 100gmof dark clotted blood and adhesions preventing good visualization of tubes and ovary. Laparotomy decided and per operatively there were about 500gms clots and gestational sac containing foetus of about 6 weeks size. Left fallopian tube was thick and oedematous distally, suggestive of tubal abortion in case of heterotopic pregnancy. Left sided salpingectomy done. 2 pints of blood transfused.

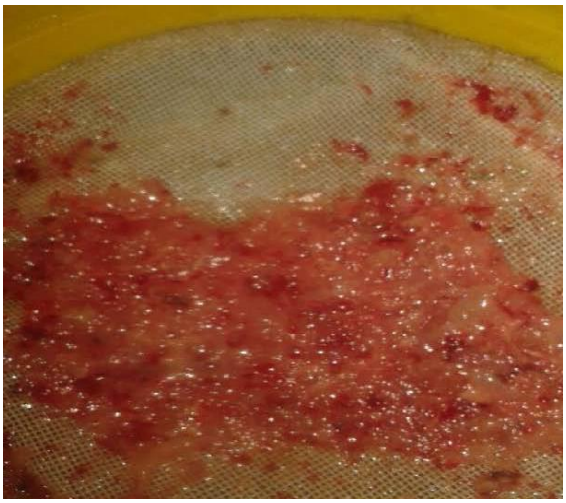

**Fig. 1: Products Obtained by Suction MTP**

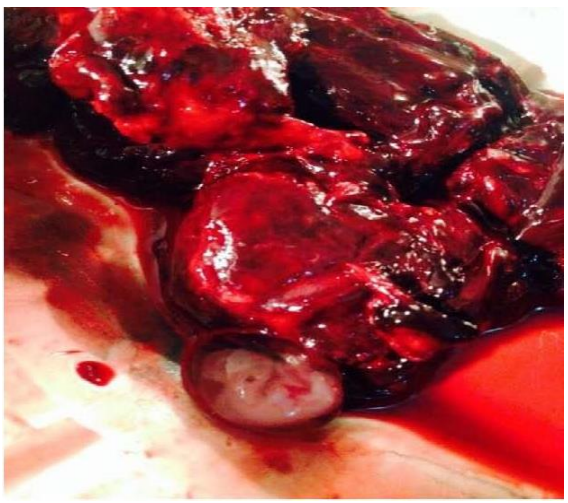

**Fig. 2: Ectopic Gestation as seen on Laparotomy**

## DISCUSSION

A heterotopic gestation is difficult to diagnose clinically and is not as straightforward as the diagnosis of an ectopic pregnancy. Heterotopic pregnancy often goes unnoticed because of the

presence of an intrauterine gestation sac. In a review of 66 cases of combined intrauterine and exrauterine pregnancy, lower abdominal pain alone was found to be the most common presenting symptom of heterotopic gestation[7]. The combination of lower abdominal pain, adnexal mass, peritoneal irritation and enlarged uterus more strongly support the existence of heterotopic pregnancy. Most commonly the location of ectopic gestation in a heterotopic pregnancy is the fallopian tube. However, cervix and ovarian heterotopic pregnancy have also been reported[8,9]. Majority of the reported heterotopic pregnancy are of single intrauterine pregnancy. Triplet and quadruplet heterotopic pregnancy have been reported[10,11], though extremely rare. It can be multifetal as well[6].

Today, Ultrasound examination, especially TVS, has made the diagnosis of this rare entity of heterotopic pregnancy easier. High resolution TVS with colour Doppler will be helpful as the trophoblastic tissue in the adnexa in a case of heterotopic pregnancy will show increased flow with significantly decreased Resistivity Index[4]. The reported gestational age at diagnosis of heterotopic pregnancy range from 5-20 weeks, upto 70% diagnosed between 5-8 weeks of gestation, 20% between 9-10 weeks and only 10% after 11$^{th}$ week with a mean age of 8weeks[12].

The treatment of a heterotopic pregnancy is selective surgical removal of the ectopic pregnancy through laparoscopy or laparotomy. Systemic methotrexate (MTX) or local injection of MTX cannot be used in a heterotopic pregnancy owing to its toxicity. The decision to allow the intrauterine pregnancy remains controversial. The intrauterine gestation may undergo spontaneous abortion after surgery for ectopic gestation. However, there have been reported cases of heterotopic pregnancy in which post laparotomy / salpingectomy, the intrauterine pregnancy continued to full term delivering a healthy neonate. In this case intrauterine pregnancy was terminated. Histopathological report showed the material as being product of conception.

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