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"A Heterotopic Pregnancy: An Incidental Discovery And The Journey Into Term" – A Case Report

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Abstract:
The pairing of an Intrauterine pregnancy and an ectopically located pregnancy is rare, and the most common dyad is an Intrauterine pregnancy and an ampullary tubal pregnancy. The natural incidence of heterotopic pregnancies is approximately 1 in 30,000 pregnancies. However, with Assisted Reproductive Technologies the incidence rate is higher 9 in 10,000 pregnancies. Rates of rupture are higher in heterotopic pregnancies as Intrauterine pregnancies are seen on ultrasonography and an ectopic may not be visualized. In this case, a 32-year-old patient came with history of 4 months of amenorrhea complaints of pelvic pain and spotting per vaginum for 2 days, and vitally stable. An ultrasonography was done with was suggestive of an intrauterine pregnancy as well as an extrauterine pregnancy. Patient and relatives were counselled for emergency exploratory laparotomy for excision of the ectopic with right salpingectomy. Patient and relatives were counselled for the risk of loss of intrauterine pregnancy. Intraoperative and Postoperative period of uneventful. She was later followed up to term and delivered by elective caesarean section successfully. A brief about challenges in the management, clinical presentation is highlighted in this case.

Key Words: *Heterotopic Pregnancy, Exploratory Laparotomy, Tubal Ectopic, Term Gestation, C-section*

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I. Introduction:

The term Heterotopic Pregnancy is defined as a pairing of an Intrauterine and an ectopically located pregnancy. It's natural occurrence is about 1 in 30,000 however the ratio triples in pregnancies born of Assisted Reproductive Technologies. Its most common location is in the ampulla of the fallopian tube.

Initial sonographic surveillance is the cornerstone of the diagnosis. It's presentation may vary from first trimester pain in the lower abdomen and pelvic pain, and bleeding per vaginum, however the signs before rupture are often subtle or absent. A rupture may decree vital instability depending on the degree of haemoperitoneum.

The intrauterine pregnancy can be preserved, and the management can be either medical or surgical, depending on the nature of the ectopic pregnancy. Small, unruptured ectopics can be targeted with Intra-Gestational-Sac injections of KCL or hyperosmolar glucose. This maybe later on followed by aspiration evacuation of the ectopic gestation. Because of toxicity, to the Intrauterine pregnancy Methotraxate is avoided. In the larger, live, or ruptured ones, on the other hand, surgical management is the most commonly used method. A healthy dose of progesterone supports will help take it till term. With ongoing pregnancy, adverse neonatal outcome rates are not appreciably elevated. However, initial sonographic surveillance of fetal growth is helpful. Route of delivery is influenced by myometrial integrity following ectopic treatment.

Here, let's delve into the world of a naturally conceived heterotopic pregnancy in a Primigravida, where the ectopic was removed by surgical method and the Intrauterine pregnancy was carried on till term and delivered by C-Section with good outcome and prognosis of both the mother and baby.

II. Case Report:

A 32-year-old Primigravida came to our casualty with complaints of pelvic pain and spotting per vaginum since 2 days. She described her pain as sharp, starting in the suprapubic area and radiating to the peri-umbilical region. Along with that, she complained of weakness and light headedness for the same duration. She

also had a history of amenorrhoea for a duration of 4 months. There were no obvious relieving and aggravating factors. She was married since 10 months. She had no history of usage of ovarian stimulation medication or undergoing any assisted reproductive technologies. No past obstetric history. There is no notable history of past medical, surgical, or family conditions. On Examination, General condition was fair, afebrile,a pulse rate of 88 beats per minute, and blood pressure of 110/80mmhg, saturation of 100% on room air. Upon performing a pelvic examination, an 14 weeks uterus was palpated and notable cervical motion tenderness was seen and minimal spotting on per speculum examination. A series of investigation were done, including UPT which was positive,and Beta-hcg of 36098 mIU/ml led us to further suspect the presence of an ectopic pregnancy.

Ultrasonographic findings were significantly more riveting. A single live Intrauterine pregnancy of 14 weeks.. Also, a 6* 5.4cm sized thick walled hyperechoic lesion rounded gestational sac like structure seen in right adnexa with evidence of fetal pole with yolk sac within, and cardiac activity is noted. The right ovary is seen separately from this structure and no free fluid in pouch of douglas suggestive of right sided unruptured tubal ectopic pregnancy. Concurrent with the Beta HCG values and the ultrasonographic findings, a strong possibility of a heterotopic pregnancy begged to be considered.

The patient and relatives were counselled regarding the diagnosis and presented with their options. Consent for emergency exploratory laparotomy was taken. Patient was also counselled regarding the possibility of loss of the intrauterine pregnancy with surgical intervention.

The patient was induced under Spinal Anaesthesia and underwent an uneventful laparotomy with right salphingectomy with excision of the ectopic. Bilateral ovaries, the left fallopian tube and adnexa appeared normal. The intraoperative and immediate postoperative periods were without complications. She was kept in the ward for a duration of 5 days and discharged home.

She followed up twice monthly for antenatal surveillance. Routine ultrasounds and NSTs assured a healthy progress of the growing foetus. An elective Caesarean Section was scheduled at 38 weeks of gestation. She delivered a healthy baby boy of 2.9 kg with a good Apgar score, while the mother had a smooth post operative recovery. Both mother and baby were discharged on post operative day 3.

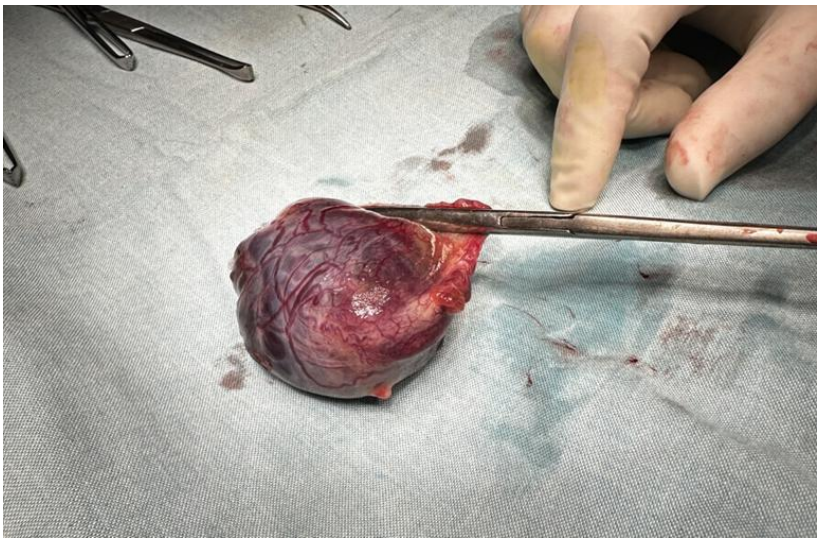

FIG 1: A Resection Of Right Tubal Unruptured Ectopic Pregnancy With Right Salpingectomy

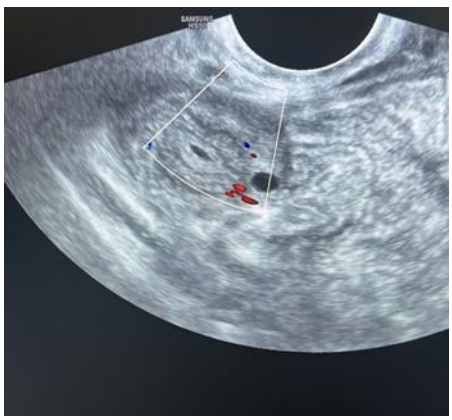

FIG 2: A USG Showing Intrauterine And An Extrauterine Pregnancy

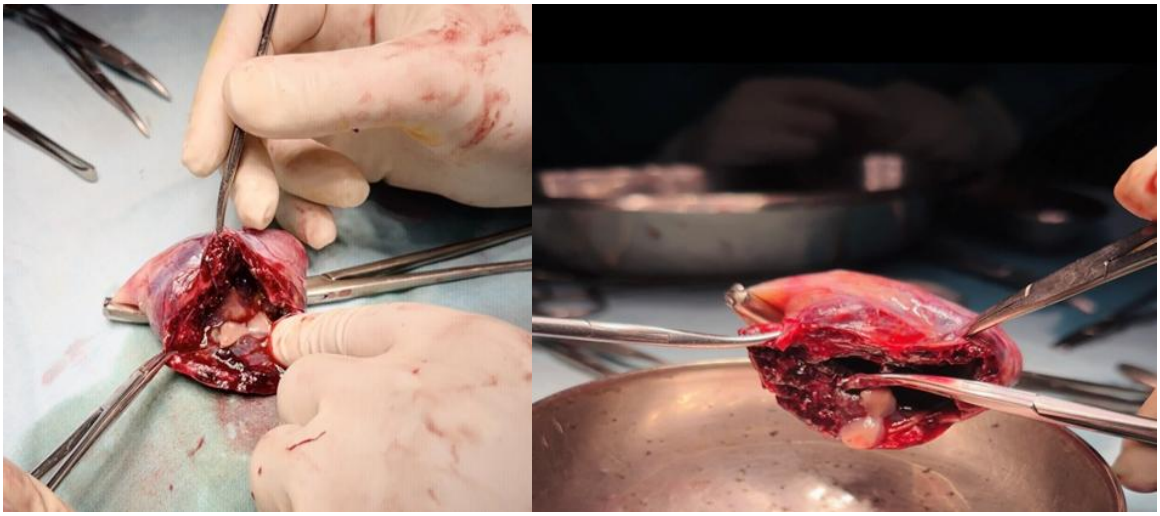

FIG 3: A Cut Section Of The Right Fallopian Tube Showing A Fetus Of 14 Weeks.

III. Discussion:

The reason behind such concurrent pregnancies not resulting from ARTs, remains an enigma to this date, especially in a Primigravida. However, several sources site these multifarous causes such as pelvic inflammatory disease, History of Genital Tuberculosis, Ovarian Hyperstimulation syndrome, Previous tubal surgeries, Peri-tubal adhesions, those formed of salphingitis and appendicitis or endometriosis, as risk factors. Failure of Contraception is largely giving rise to this incidence, few studies report. Majority of heterotopic pregnancies are reported to be diagnosed at a gestational age of 6 to 8 weeks. In contrast, our case was diagnosed at the gestational age of 14 weeks.

The earlier the antenatal registration is, the earlier we can hope to prevent surgical interventions or at the very least, try for more minimally invasive techniques for the removal of the ectopic. This case was diagnosed at the end of the first triemster and it is a telescope into the lack of knowledge surrounding the public on the importance of early ultrasounds in the antenatal care.

Diagnosis of heterotopic pregnancy in early pregnancy presents a peculiar clinical dilemma, given it"s rarity. Most of them are diagnosed once ruptured. Routinely ultrasonographic investigations including transvaginal ultrasound, may detect adnexal masses like theca luteal cyst, functional ovarian cyst, and an ectopic pregnancy. Serum beta- hcg levels may not always provide us to the diagnosis, as it is raised in Intrauterine pregnancy as well.

Management remains a discussion all on its own, more importantly when the patient is desirous for the intra uterine pregnancy to continue. In our case emergency laparotomy was done and later patient was followed up in our antenatal clinic and planned for elective C-Section on patient's request at 38 completed weeks.

On the other hand, it should be remembered that the coexistence of extrauterine pregnancy may be threatening not only for the developing fetus in the uterus but also for mother the mortality rate is 1%.

IV. Conclusion:

Albeit quite uncommon an event, this article shows a heterotopic pregnancy is not the formidable diagnosis it once was, and even though it has been mentioned sparsely in research, a speedy diagnosis and intervention is integral in making the intrauterine pregnancy a success story.

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