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Case Report

Ectopic pregnancy – A conundrum

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ABSTRACT

Ectopic pregnancy accounts for 1 to 2% of all conception. Ectopic pregnancy in the cornua (part from where fallopian tube exit the endometrial cavity) is rare and its management is tricky. We present a case of cornual ectopic pregnancy complicated by fibroid uterus for which hysterectomy was done.

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1. Introduction

About 2% of all pregnancies are found to be ectopic.¹ In cornual pregnancy the conceptus gets implanted in the proximal portion of uterine tube, lying within the muscular wall of the uterus.² Pregnancy in the interstitial or cornual region is very rare and its incidence is 2 to 4% of ectopic pregnancies. The diagnosis is also challenging due to low sensitivity and specificity of symptoms and diagnostic imaging.^{1,3,4} Abdominal pain, amenorrhea and vaginal bleeding are the classical triad of ectopic pregnancy and it is seen in only 40% of ectopic pregnancy. This classical triad may not be seen in cornual pregnancies.¹ Here, we present a case of cornual ectopic pregnancy with intramural and sub-serosal fibroid uterus managed by total abdominal hysterectomy.

2. Case Report

35 year old para 1 live 1 presented to the out-patient department with 60 days of amenorrhea. She had regular menstrual cycle. Her previous delivery was full term delivery by caesarean section 9 years back and one induced

abortion 6 years back. She was a known case of hypothyroid for 6 years and was on 100 micrograms of thyroxine supplements. General physical examination vitals were stable and she was obese. Abdominal examination showed soft abdomen with central obesity and healthy pfannenstiel scar. Speculum examination revealed normal cervix and healthy vagina and bimanual examination showed uterus of 14 week size, mobile with no mass or fullness in the bilateral fornices. Her urine pregnancy test was positive.

Pelvic sonography showed gestational sac with fetal pole on right side of fallopian tube. CRL = 1.9cm corresponds to 8 weeks + 3 days. Fetal cardiac activity noted. Her beta HCG was found to be 15000 IU/L.

She was planned for emergency laparotomy. Intraoperative findings revealed right cornual enlargement 5x 5cm with adjoining normal right fallopian tube & ovary, subserosal fibroid of 10 x 10cm arising from the fundus, pseudobroad ligament fibroid from left corpus of uterus measuring 7 x 6cm, left side fallopian tube and ovary was normal. Hence, proceeded with total abdominal hysterectomy. Cut section of the right cornua showed gestational sac with fetus. Postoperative period was uneventful and patient discharged on pod 7 after suture removal.

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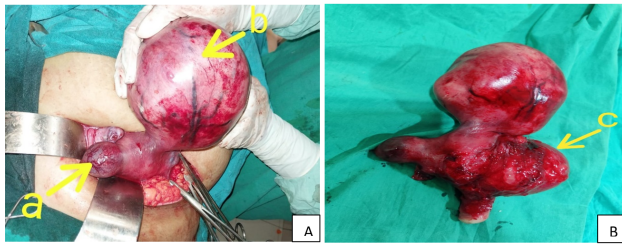


Figure 1: A): Arrow ‘a’ shows cornual pregnancy and arrow ‘b’ shows subserous fibroid uterus; B): Arrow ‘c’ shows pseudo broad ligament fibroid from left lateral uterine wall

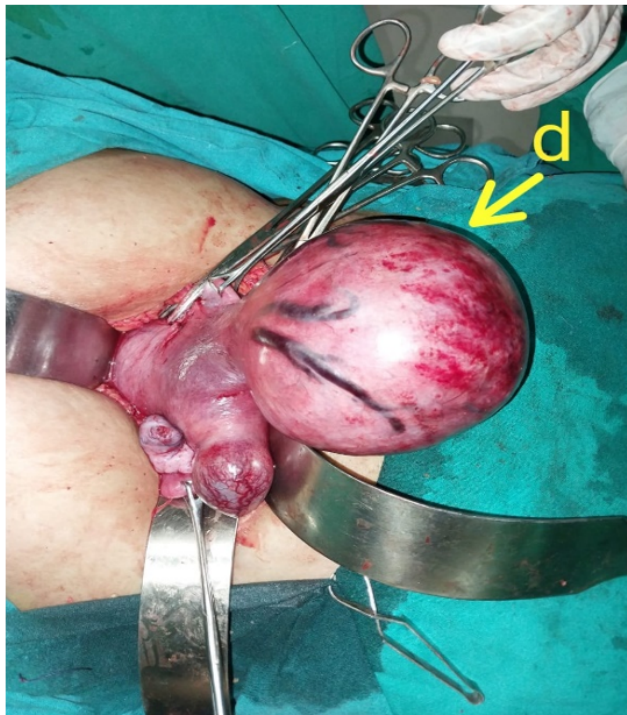


Figure 2: Arrow ‘d’ shows posterior surface of uterus



Figure 3: Arrows ‘e’ and ‘f’ shows cut open specimen of cornual ectopic - 8 week embryo

3. Discussion

Pregnancy that gets implanted other than the endometrial cavity is ectopic pregnancy. Fallopian tube is the most common site of ectopic pregnancy and it accounts to 95% of ectopic pregnancy. Cornual pregnancy accounts for 2% of ectopic pregnancy and here, conceptus is implanted in the proximal portion of the uterine tube lying within the muscular layer of the uterus.¹ As myometrium is more distensible in cornual region than in fallopian tube, cornual pregnancy can go undiagnosed upto 14weeks.³

Risk factors for ectopic pregnancy are Artificial reproductive technology, previous salpingectomy, any surgeries in the tubes, uterus with rudimentary horn, history of genital tract infection, history of pelvic inflammatory diseases, previous tubal pregnancy and proximal intratubal adhesions.⁵

Timor- Tritsch’s diagnostic criteria for cornual pregnancy:

1. An empty uterine cavity.
2. A chorionic sac seen separately and more than 1 cm from the most lateral edge of the uterine cavity.
3. A thin Myometrial layer surrounding the gestational sac²

It is very important to recognise the interstitial and cornual pregnancies earlier. Traditional treatment modality of these pregnancies is laparotomy followed by cornual resection or hysterectomy in patients with ruptured uterus and hypovolemic shock.

Methotrexate therapy and cornuostomy and repair are the conservative management.

Goals of conservative management includes 1. To stop the development and growth of embryo 2. To resorb the gestational sac 3. Preserve the future fertility of the patient.⁶

Advances in diagnostic modalities to identify the cornual ectopic aids in removal of the cornual /interstitial ectopic by laparoscopic cornuostomy with cornual resection. Lucas Tade et al did left salpingectomy with resection of interstitial portion of the tube for left interstitial pregnancy.⁷

In laparoscopic cornuostomy, incision is given over the cornual bulge followed by removal of products of conception, cornual repair and ensuring hemostasis.⁸

Blood loss during cornual resection can be reduced by giving 1.Inj. Vasopressin into the pericornual region or by 2. Electrocoagulation at the incision site or by 3. Endo-loop application as a paracornual tourniquet or y 4.purse string sutures around the cornual area.⁹

Most common conservative management in early ectopic pregnancy is methotrexate therapy with success rate of 91% and upto 66.7% in cornual ectopics. It can be given by systemic therapy or intralesional or local therapy. Methotrexate can be considered for women desiring future fertility.¹⁰

In a prospective observational study in London at St George's Hospital Medical School, 17 out of 20 women with cornual pregnancy were treated with single-dose intramuscular methotrexate and was administered on day 0. A second dose of methotrexate was given if the human chorionic gonadotrophin (hCG) levels had not fallen by 15% between days 4 and 7. Sixteen (94%) were treated successfully, including all four cases with presence of fetal heart activity. A second methotrexate dose was given to six women.⁹

Dagar Mamta et al. concluded even in the presence of initial high beta hCG levels and cardiac activity, combined use of systemic and transvaginal USG-guided local methotrexate injection along with KCl in the management of cornual pregnancy is a safe and effective treatment method in hemodynamically stable patients.⁴

Conservative management with methotrexate can be given for a cornual pregnancy of medium size (<5 cm) if there are no contraindications, such as intra-abdominal bleeding and concomitant intrauterine pregnancy. However, treatment with methotrexate has been associated with a failure rate as high as 65%. Large cornual pregnancies of 5 cm or larger should be managed surgically due to increased risk of rupture.³

In our case we underwent total abdominal hysterectomy in view of cornual ectopic pregnancy with subserosal and true broad ligament fibroid.

4. Conclusion

Cornual pregnancy is a rare presentation of ectopic pregnancy. It is important for early recognition of the condition with ultrasonography. Early diagnosis and timely management in ectopic pregnancy will prevent the morbidity and mortality. With advances in laparoscopy and adjuvant use of methotrexate in ectopic aids in conservative management.

5. Source of Funding

None.


6. Conflict of Interest


None.

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