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Case Report

A corny conundrum: a rare case of cornual ectopic pregnancy

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ABSTRACT

Ectopic pregnancy is one of the obstetrical emergencies, identifying ectopic and early intervention and management places a crucial role in saving one's life. This life-threatening emergency is one of the important causes for maternal morbidity and mortality. In this case study we report a 22-year-old primigravida who presented to R. L. Jalappa hospitals emergency department with severe pain abdomen, with history of 3 months of amenorrhea, unsure of her last menstrual period, on examination her vitals were unstable and diffuse tenderness noted on per abdomen examination, ultrasound showing ruptured ectopic pregnancy, patient was managed successfully through emergency exploratory laparotomy with unilateral salphingectomy.

Keywords: Ectopic, Pregnancy, Salphingectomy, Corneal pregnancy, Maternal

INTRODUCTION

After fertilization the blastocyst normally implants in the endometrial lining of the uterine cavity.[1] Implantation elsewhere is considered ectopic. The ampulla 70 % is the most common site followed by isthmic implantation is 12%; fimbrial is 11%; and interstitial is 2%, nontubal ectopic pregnancies compose the remaining 5 percent and implant in the ovary, peritoneal cavity, cervix, or prior cesarean scar. Pelvic-wall pregnancy results in hypogastric tenderness, genitourinary symptoms or asymptomatic appearance.[2] The rate of mortality accounts for 3 percent of all pregnancy-related deaths from ectopic pregnancy.

CASE REPORT

A 22-year-old Primigravida came with complaints of pain abdomen from yesterday (24/8/2024) night 10 pm, it was continuous dull aching type, non-radiating and she had come with complaints of bleeding per vagina since 4 days not associated with passage of clots, her LMP was on 27/7/2024, UPT was done and it was positive. On arrival of the patient to the emergency department the vitals were SpO_2 98% on RA, pulse-98 bpm, blood pressure-blood pressure 110/80 mmHg as following: as mentioned in Table 1 below.

Table 1: Vitals on arrival.

Vitals	Results
SpO_2	98% on RA
Pulse	98 bpm
Blood pressure	110/80
Temperature	36.9
Respiratory rate	22 cpm

On per abdomen examination-abdomen was soft, tenderness present. On per speculum examination no active bleeding was seen.

On per vaginal examination cervical motion tenderness was present and right forniceal fullness present. Routine investigations were sent and reported as mentioned below from (Tables 2-4).

Blood group: O positive

Table 2: Complete blood picture.

Date	HB (gm%)	RBC (mil/mm³)	PCV%	WBC (th/mm³)	PLT (th/mm³)
25/08/24	9.8	4.70	30.5	10.07	299
30/08/24	9.3	3.98	35.6	16.8	208

Table 3: LFT.

Date	TB (mg/dl)	DB (mg/dl)	SGOT (U/L)	SGPT (U/L)	ALB (g/dl)	GLB (g/dl)	A:G	GGT (U/L)	ALP (U/L)	TP (g/dl)
25/08/24	0.5	0.2	23	10	3.3	3.0	1.1	10	75	6.3

Table 4: RFT.

Date	Urea (mg/dL)	Creatinine (mg/dl)	Sodium (mEq/L)	Potassium (mEq/L)
25/08/2024	7	0.7	134	3.6

HIV, HBSAG-negative, PT-14.3 sec, APTT-29.7 sec, INR-1.178, BT: 2 mins, CT-4 mins LDH-326 U/l. USG abdomen and pelvis was done and reported as right ovary-A heterogeneous lesion measuring 1.8×1.3 cm and gestational sac of 3.7 mm 4 weeks 6 days in Rt adnexa. Right tubal ruptured ectopic pregnancy. Patient was taken up for emergency exploratory laparotomy with right salphingectomy in view of right ruptured tubal ectopic pregnancy under spinal anaesthesia on 25/08/2024. Intraoperaively right ruptured tubal ectopic of 4×5 cm noted at the ampullary junction, as shown in Figure 1, hemoperitonem of 100 cc noted, right sapingectomy was done, as shown in Figure 2, and hemostatis achieved as shown in Figure 3 and specimen sent for histopathological examination. Histopathology reported as right tubal ruptured ectopic pregnancy.

Postoperatively she was monitored and her vitals were stable, suture removal done post operative day 8, wound healthy. She was adviced for contraception and birth spacing for 6 months.

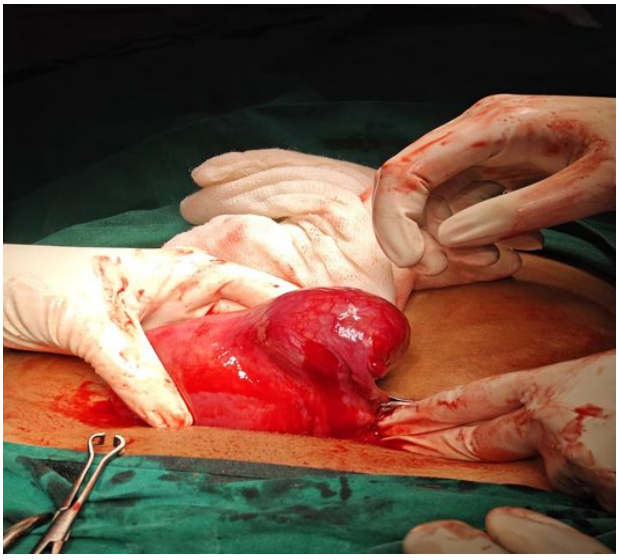

Figure 1: Per operative-left side ectopic pregnancy.

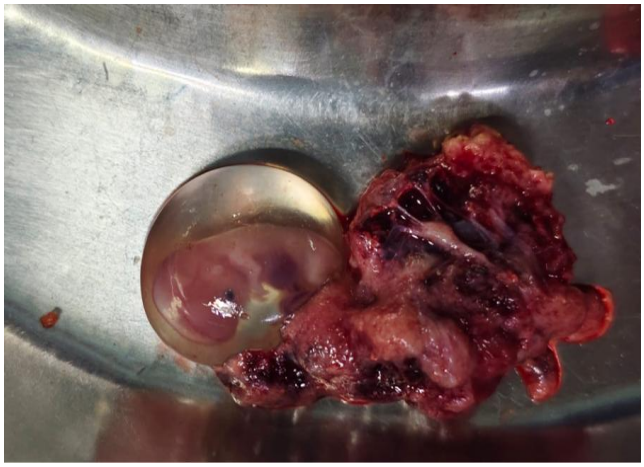

Figure 2: Per operative-*en sac* with fetus.

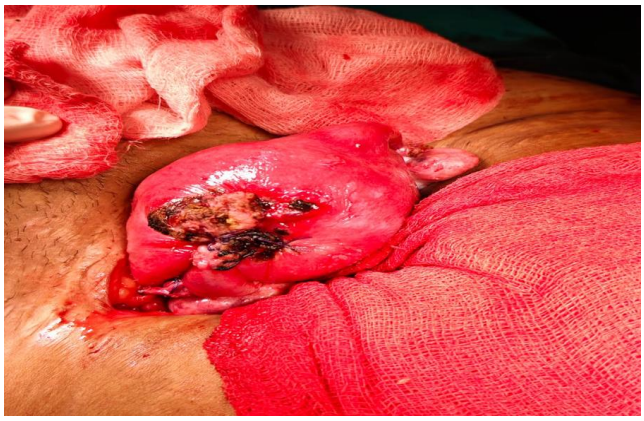

Figure 3: Hemostasis achieved.

DISCUSSION

The fallopian tube lacks a submucosal layer, so in tubal pregnancy the fertilized ovum promptly burrows through the epithelium.[4] The zygote comes to lie near or within the muscularis, which is invaded by rapidly proliferating trophoblast. Potential outcomes from this include tubal

rupture, tubal abortion, or pregnancy failure with resolution. An interstitial pregnancy is one that implants within the tubal segment that lies within the muscular uterine wall.[5] The myometrium covering the interstitial fallopian tube segment permits greater distention before rupture. Because of the proximity of these pregnancies to the uterine and ovarian arteries, hemorrhage can be severe and associated with mortality rates as high as 2.5 percent. On ultrasound examination the cornual pregnancy shows interstitial line sign, as shown in figure -4, this is an echogenic line between the gestational sac and endometrial cavity.[6] Cornual pregnancy, although it accounts for only about 2% of all ectopic pregnancies, is associated with significant risks, including a high probability of rupture and increased morbidity. This type of ectopic pregnancy occurs when the embryo implants in the cornua, the area where the fallopian tube meets the uterus.[7] Compared to more common tubal pregnancies, the ability of the cornual uterine tissue to stretch allows pregnancies to progress undetected for weeks longer prior to rupture.[8] Cornual location within the interstitium can be confused with an uncomplicated intrauterine pregnancy on traditional two-dimensional ultrasonography. Initial management should always be focused on stabilizing the patient with a good hospital setup with multidisciplinary team with blood and blood products in hand. They require either laparoscopic cornual resection or hysterectomy, although some are successfully treated with outpatient methotrexate.

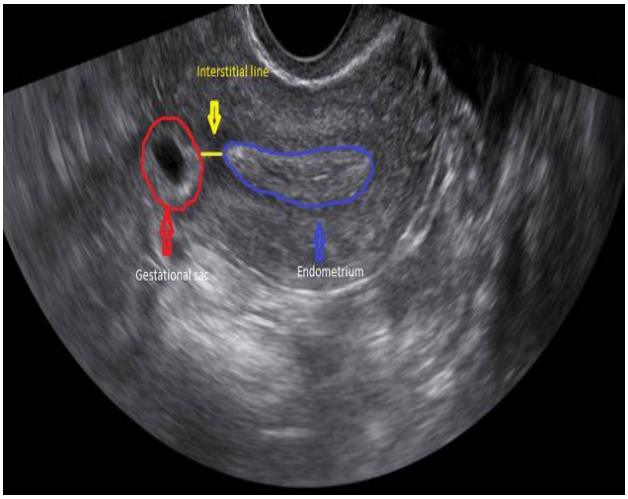

Figure 4: Usg findings.

CONCLUSION

The management of interstitial pregnancy should pay much attention, because of the increased risk of mortality compared with other tubal ectopic pregnancy, because this type of ectopic pregnancy often involves the damage of the uterine vessels, this results in heavy bleeding in those with ruptured interstitial pregnancy. Surgically, either cornual resection or cornuostomy may be performed via laparotomy or laparoscopy, depending on patient hemodynamic stability and surgeon expertise. They require layered myometrial closure.

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