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Case Report

A Rare Case of Communicating Rudimentary Horn Pregnancy with Rupture at 14 weeks

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ABSTRACT

Rudimentary horn in a unicornuate uterus is a rare mullerian duct anomaly. Rudimentary horn pregnancy is an extremely rare form of ectopic gestation. This mullerian duct anomaly commonly ends up with rupture in second trimester and presents with severe tenderness and massive hemoperitoneum resulting in considerable morbidity and even mortality.

We are presenting a case report of 26 year old female, $G_3 P_1 A_1 L_1$ who reported to our hospital with 14 weeks pregnancy with clinical features of ectopic pregnancy. Diagnosis of ruptured rudimentary horn pregnancy was made on laparotomy.

Key words: Rudimentary horn pregnancy, Unicornuate uterus, Ectopic gestation.

INTRODUCTION

Unicornuate uterus belongs to type 2 American Fertility Society classification based on the scheme of Buttram and Gibbons and is further subclassified into communicating, noncommunicating horn, no cavity or no horn. [1] It accounts for approximately 2.4-13% of all mullerian anomalies. [2] The incidence of pregnancy in rudimentary horn varies from1 per 100,000 to 140,000 pregnancies.[3] In 1669, Mauriceau reported the first case of uterine rupture associated with rudimentary horn. [4] It commonly ends up with rupture in second trimester and presents with severe tenderness and massive hemoperitoneum resulting in considerable morbidity and even mortality. There are several cases reported with pregnancy in non-communicating horn. We are presenting a rare case of rupture of pregnancy in communicating horn.

CASE REPORT

A 26 year old female presented to the emergency ward of our hospital with complaints of abdominal pain since 6 hrs and bleeding per vaginam since 3 hrs. She gave history of $3^1/_2$ months amenorrhea and history of giddiness and 1 fainting episode. There was no history of abdominal trauma. She had previous 1 full term normal vaginal delivery 2 years back with uneventful course and one spontaneous abortion followed by D&C in some private hospital 1 year back.

On examination she was pale, ill looking, having tachycardia (pulse-124/minute) and hypotension (BP- 100/50mm Hg), respiratory rate was 18/min. and she was afebrile. On per abdomen examination there was distension with tenderness over hypogastrium and left iliac fossa, guarding and rigidity. On per speculum examination cervix and vagina was healthy. Blood was seen coming out of the cervical os. On per vaginal examination the exact uterine size could not be made out due to abdominal distension. Left adnexa was extremely tender and cervical os was closed. Her urine pregnancy test was positive. She had no antenatal visits and got no ultrasonography done. In our hospital patient was resuscitated and at the same time shifted to operation theatre and decision of laparotomy was taken immediately because the patient was in shock.

On laparotomy around 1.5 litres of hemoperitoneum was drained and there was rupture of left rudimentary horn of the unicornuate uterus with fetus lying en-sac in the peritoneal cavity. The horn was communicating with the uterine cavity through a 3cm tunnel confirmed by blunt probe. The rudimentary horn was excised and hemostasis achieved. There were no urinary malformations. 3 units of packed RBCs were transfused and the patient was shifted to the High Dependency Unit for monitoring. Patient had uneventful post-operative recovery. She was discharged on 9^{th} post-operative day.

DISCUSSION

Unicornuate uterus with rudimentary horn develops as a result of failure of complete development of one of the Mullerian ducts and due to incomplete fusion of the contralateral one. [5] Pregnancy in the rudimentary horn of a unicornuate uterus is rare event, and that to in communicating horn is even rarer. 80-85% of the rudimentary horn is connected with the uterus by fibrous or fibromuscular band representing a non-communicating horn. [6] In such type of horn, pregnancy occurs through transperitoneal migration of sperms or the fertilized ovum. [7]

Abdominal pain is the most common presenting symptom with rudimentary horn but communicating horn pregnancy is generally asymptomatic in early pregnancy. Pain starts by the end of first or beginning of second trimester. Accurate diagnosis is much difficult but is necessary in early pregnancy. Vaginal bleeding is rare but if it occurs it is most likely communicating horn pregnancy as in our case. [6] According to literatures 80 - 90 % of rudimentary horn pregnancies end up in rupture by the second trimester & only 10 % reach till term with a fetal rescue rate of only 2 %& maternal mortality is around 5.1 %. [8] Symptoms & signs mimic ectopic pregnancy. Patient presents with severe abdominal pain, sudden collapse and hemoperitoneum. Definitive diagnosis is made only on laparotomy. Treatment is resection of horn but sometimes subtotal hysterectomy is the only life saving measure. [6] During surgery the surgeon should also see for any ureteric anomaly as 30-40% of these patients have urinary malformations. [9] Unruptured pregnancy can be dealt laparoscopically. [6] Before planning this surgery intravenous pyleogram can be considered to see for any urinary malformations. Even after resection of the rudimentary horn, patients with a unicornuate uterus are at a higher risk of obstetrical complications, such as first & second trimester abortion, preterm delivery, intrauterine growth restriction and intrauterine fetal demise,& only a few obstetrical risks can be reduced by a regular pregnancy follow up and specific interventions. [10]

CONCLUSION

Pregnancy in the rudimentary horn of a unicornuate uterus is a rare entity but in a communicating horn is rarer. Early diagnosis & management is crucial to prevent life threatening complications. High index of suspicion is required. Urinary malformations should be excluded before surgery in case of elective surgery & during surgery in case of emergency laparotomy.

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