

# A CASE REPORT ON RUPTURED RUDIMENTARY HORN ECTOPIC PREGNANCY

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Unicornuate uterus with rudimentary horn is a type of Mullerian duct malformation and its incidence has been reported as 1 in 1000.1 This malformation results from the defective fusion of the duct with the contra-lateral side. This rudimentary horn may or may not have functional cavity. This cavity is usually found to be non communicating with main cavity of unicornuate uterus. Collection of menstrual blood in the rudimentary horn will result in hematometra and can cause chronic pelvic pain and subsequent endometriosis. PREGNANCY IN A RUDIMENTARY UTERINE HORN is a rare condition that can lead to a catastrophic outcome when it rupture during second trimester of pregnancy. Pre rupture diagnosis of pregnancy in rudimentary horn with ultra sonography is technically difficult, with sensitivity of 30% which can then be confirmed by a magnetic resonance image (MRI) or a laparoscopy. We report a case of ruptured non-communicating rudimentary horn at 19 weeks in pregnant lady. In our opinion, routine excision of rudimentary horn should be undertaken during non pregnant state laparoscopically. However, those women who refuse should be adequately counseled regarding potential complications and if pregnancy occurs in rudimentary horn, first trimester laparoscopic excision should be done.

# **KEYWORDS**

ultrasonography, ultrasonographic

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### INTRODUCTION

Ruptured rudimentary horn is a life threatening obstetrical emergency encountered frequently in the emergency department where the diagnosis is either missed or delayed. Unicornuate uterus results from abnormal development and fusion of the mullerian ducts usually associated with various degrees of rudimentary horn which may be communicating or non-communicating with the uterine cavity. The connection of the horn with the uterus may be fibrous or fibromuscular. There is no communication between the two cavities in 75% to 90% of the cases and the incidence of pregnancy in non-communicating horn is high as 83% with incidence of uterine rupture observed in 90% of cases mostly in second trimester as was observed in our case. The thin muscular wall of the pregnant uterus ruptures early because of under development and poor distensibility of the myometrium.

## CASE REPORT

A 20-year-old woman gravida 2, para 0, abortion 1 came to emergency with severe lower pain abdomen and vomiting since last one day. She was 18 weeks 4days pregnant. The patient had no significant medical or surgical history.. On examination patient was in hypovolemic shock with moderate pallor, hypotension, and tachycardia. The abdomen was tense and symphysiofundal height was 22 weeks. Her bowel sounds were normal. On pelvic examination cervix and vagina were healthy, there was no bleeding through os, and size of uterus could not be made out due to intense tenderness. Per rectal examination was within normal limits. Immediately two large bore intravenous canula were inserted, one liter of fluid was rushed, patient was catheterized (she passed 100 mL of clear urine), and urgent investigations and cross match was sent. urgent ultrasound was done. Extra uterine fetus without fetal movements and cardiac activity noted in left lumbar leasion with maturity of 18 weeks and 4 days. E/o moderate echogenic free fluid with echogenic material measuring 9.9\*6.9 cm noted in peritoneal cavity s/o Hemoperitoneum Left adrenexa could not be visualised separately due to mod.hemoperitoneum.Uterus appear mildly bulky with decidual reaction Her hemoglobin was 6.5 g%, one unit blood was rushed. Her BetaHCG report was 70880.Immediately The patient was taken for explorative laparotomy. Intraoperatively a.unicornuate uterus with rupture of noncommunicating rudimentary horn was confirmed and a dead fetus was found in peritoneal cavity with moderate hemoperitoneum. Both the ovaries and tubes were normal.. Placenta was found separated in abdominal cavity. Excision of rudimentary horn, ipsilateral salpingectomy was done. Patient received three units of blood transfusion. She had an uneventful recovery and was discharged on day 7 post operative with an advice for hysterosalpingogram 6 weeks later. On her histopatho report, Specimen labelled as rudimentary horn shows uterine myometrium

and endometrium consistent with uterine structure. Specimen also shows placental tissue with hemorrhage.



Fig 1- Empty Uterus Wit No Intrauterine G Sac

Fig 2- Mod.hemoperitoneum



## DISCUSSION

Pregnancies occur in both communicating and non communicating horns in proportion to their relative incidence and are equally likely to rupture Neonatal mortality is very high as most cases are emergency laparotomies after uterine rupture at premature gestational age. Maternal mortality is low (0.5%),but morbidity is very high in view of massive blood loss and morbidly adherent placenta.

The prerupture diagnosis of pregnancy in rudimentary horn has drastically reduced maternal mortality,But the sensitivity of ultrasound to detect pre rupture rudimentary horn pregnancy is very poor (30%), probably because of rarity of the diagnosis and non familiarity of the radiologists about this potentially lethal condition. Early diagnosis before rupture can be managed laparoscopically by immediate excision of the horn, pregnancy, and the ipsilateral fallopian tube.

## **Original Research Paper**

This case further raises the question of whether routine excision of rudimentary horn be undertaken in women with unicornuate uterus as a prophylaxis to prevent such catastrophes.

A further evaluation of timing of such a surgery is required in a case series, which seems highly unlikely considering the rarity of the condition. In our opinion this decision should be extrapolated from isolated case reports only and routine laparoscopic excision of rudimentary horn with ipsilateral fallopian tube should be offered to these women and those refusing should be adequately counseled regarding the potential complications and if pregnancy occurs in rudimentary horn first trimester laparoscopic excision should be done.

#### CONCLUSION

Despite advances in ultrasound and other diagnostic modalities, prenatal diagnosis remains elusive, with confirmatory diagnosis being laparotomy. The diagnosis can be missed in ultrasound especially in inexperienced hands. Precious time may be lost due to delay in diagnosis or misdiagnosis. Timely resuscitation, surgery, and blood transfusion are needed to save the patient. Proper diagnostic methods and early referral from the peripheral hospitals is needed to reduce the morbidity and mortality of the patients. There is a need for an increased awareness of this condition especially in developing countries where the possibility of detection before pregnancy or before the rupture is unlikely, and precious time is lost in shifting these women to the referral hospital.

#### **Conflict of Interests**

There is no conflict of interests with any individual or organization.

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