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Ruptured Rudimentary Horn Pregnancy: A Case Report

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Abstract

Pregnancy in the rudimentary horn is rare and carries grave consequences for the mother and fetus. A case report is presented of a 25 year old Primigravida with rupture of a rudimentary horn pregnancy at a gestational age of 13-14 weeks. Laparotomy was done and the rudimentary horn excised. Post-operative recovery was uneventful. The need for a high index of suspicion and the role of ultrasonography in the accurate diagnosis is highlighted.

Introduction

The blastocyst normally implants in the endometrial lining of the uterine cavity. Implantation anywhere else is an ectopic pregnancy. Almost 2 in 100 pregnancies are ectopic, and over 95 per cent of these involve the oviduct. [1]

The risk of death from an extrauterine pregnancy is greater than that for pregnancy that either results in a live birth or is intentionally terminated. With earlier diagnosis, however, both maternal survival and conservation of reproductive capacity are enhanced.

Case Report

A 25years old, Primigravida, married since 5years, presented to labor room with c/o 4 months of amenorrhoea, pain in the lower abdomen and giddiness since one day. On examination, patient appeared conscious & oriented. Pale (pallor +++) had tachycardia (PR 112bpm) and a BP of 90/50mmHg. CVS/RS: NAD. On abdominal examination, there was generalized tenderness with guarding and rigidity. Vaginal examination revealed a vague mass in left fornix, Uterus was bulky, Anteverted, cervical motion tenderness was there.

Her hemoglobin was 3.5g%. Ultrasound examination revealed a dead fetus of 13-14 weeks adjacent to uterus possibility of Bicornuate uterus/ Ectopic pregnancy cannot be ruled out, with moderate fluid in POD & peritoneum.

After adequate blood and fluid resuscitation, she underwent emergency laparotomy. Intra-operatively, 1500ml of blood in peritoneum with blood clots. There was a rudimentary horn of Uterus on left side which was ruptured. A dead fetus of 13-14weeks along with placenta was expelled into the peritoneal cavity after rupture. Rudimentary horn of uterus was excised & removed. Left sided fallopian tube & ovary were normal. Remaining part of uterus, right fallopian tube & ovary were also normal. Peritoneal wash was given with normal saline & abdomen was closed in layers.

Discussion

Definitions of Types of Abnormal Intrauterine and Extrauterine Pregnancies

Extrauterine Pregnancy [2]

- Tubal pregnancy: A pregnancy occurring in the fallopian tube—most often these are located in the ampullary portion of the fallopian tube.
- Interstitial pregnancy: A pregnancy that implants within the interstitial portion of the fallopian tube.

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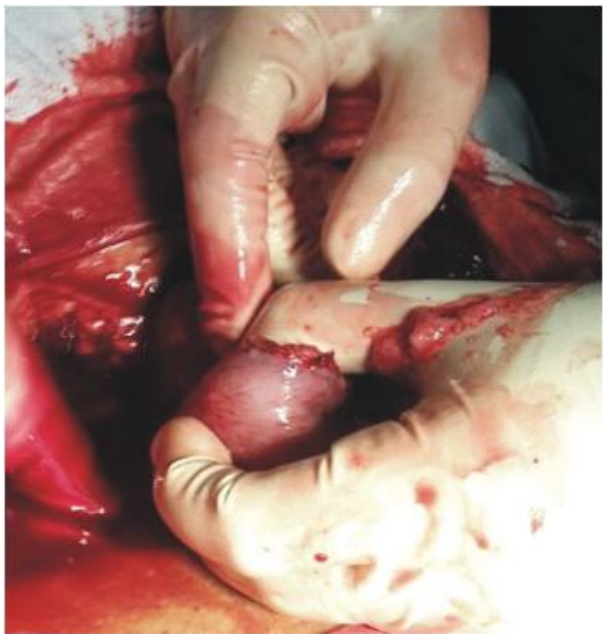
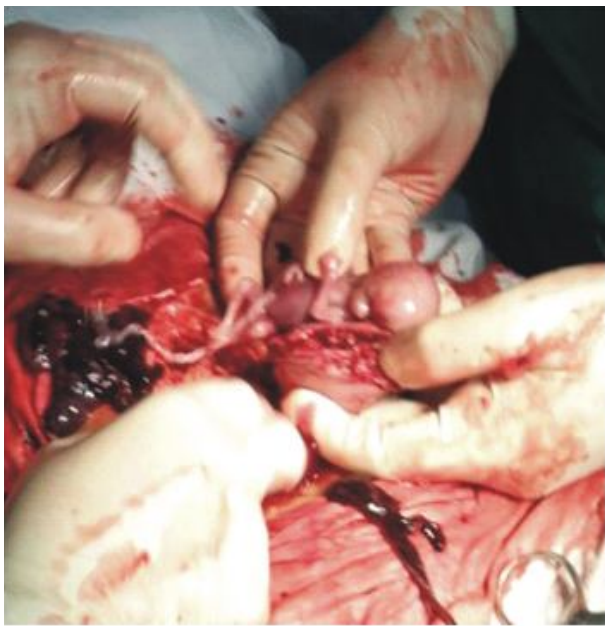
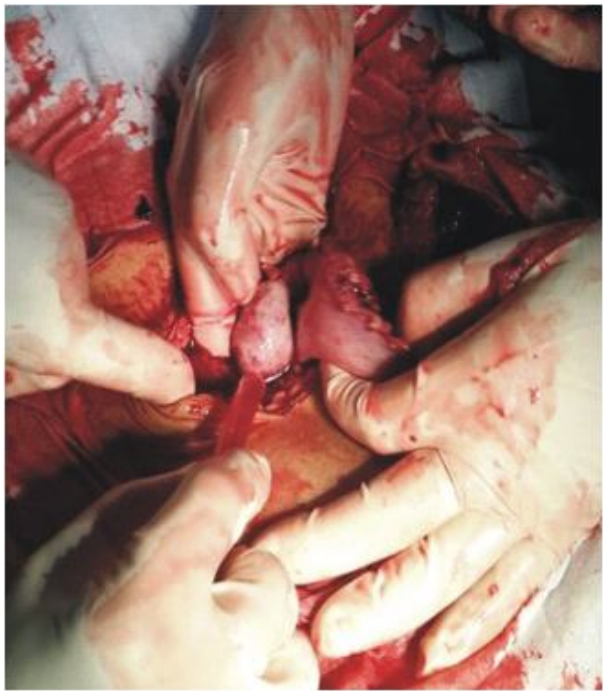
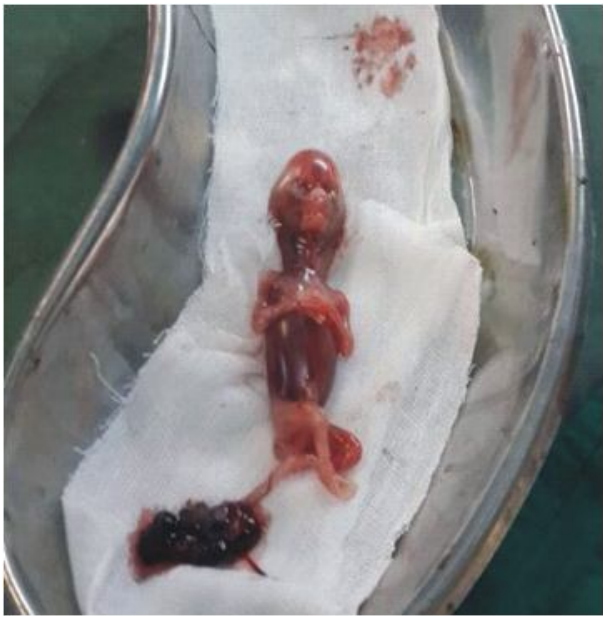
- Abdominal pregnancy: Primary abdominal pregnancy—the first and only implantation occurs on a peritoneal surface. Secondary abdominal pregnancy—implantation originally in the tubal ostia, subsequently aborted, and then reimplanted onto a peritoneal surface.
- Cervical pregnancy: Implantation of the developing conceptus in the cervical canal.
- Ligamentous pregnancy: A secondary form of ectopic pregnancy in which a primary tubal pregnancy erodes into the mesosalpinx and is located between the leaves of the broad ligament.
- Heterotopic pregnancy: A condition in which ectopic and intrauterine pregnancies coexist.
- Ovarian pregnancy: A condition in which an ectopic pregnancy implants within the ovarian cortex.









Rudimentary horn with a unicornuate uterus results from failure of complete development of one of the mullerian ducts and incomplete fusion with the contralateral side. In 83% of cases the rudimentary horn is non-communicating [3].

Pregnancy in a non communicating rudimentary horn occurs through transperitoneal migration of sperm or fertilized ovum [4]. It is associated with a high rate of spontaneous abortion, preterm labour, intrauterine growth retardation, intraperitoneal haemorrhage and uterine rupture [5]. Diagnosis prior to rupture is unusual, but could be made with ultrasonography and MRI. Tsafrir *et al* outlined a set of criteria for diagnosing pregnancy in the rudimentary horn [6].

They are: (1) A pseudo pattern of asymmetrical bicornuate uterus; (2) Absent visual continuity tissue surrounding the gestation sac and the uterine cervix: (3) Presence of myometrial tissue surrounding the gestation sac. None-the-less most cases remain undiagnosed until it ruptures and presents as an emergency.

The usual outcome of rudimentary horn pregnancy is rupture in second trimester in 90% of cases with fetal demise [7], however cases of pregnancy progressing to the third trimester and resulting in a live birth after caesarean section has been documented [5]. It is recommended by most that immediate surgery be performed whenever a diagnosis of pregnancy in a rudimentary horn is made even if unruptured [8]. However, conservative management until viability is achieved has been advocated in very select cases with larger myometrial mass, if emergency surgery can be performed anytime and the patient is well-informed.

Pregnancy in a rudimentary horn carries grave risk to the mother. There is need for increased awareness of this rare condition and to have a high index of suspicion especially in developing countries where the possibility of early detection before rupture is unlikely[9].

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