



A RARE CASE OF PREGNANCY IN THE RUDIMENTARY UTERINE HORN

Radio-Diagnosis

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ABSTRACT

BACKGROUND: An unicornuate uterus with a rudimentary horn is a uterine anomaly resulting from the incomplete development of one of the Mullerian ducts and an incomplete fusion with the banana shaped contralateral side, normally developed horn. In 83% of patients, the rudimentary horn has no direct connection to the endometrial cavity of normal horn. Pregnancy in rudimentary horn is a rare clinical condition with a reported incidence of 1 in 1,00,000-1,40,000 pregnancies. It is postulated that the sperm or fertilized ovum migrates transperitoneally from the contralateral tube to the tube connected to rudimentary horn and eventually implanted into the endometrial cavity of that rudimentary horn. Usually the diagnosis may missed and may present as an emergency with hemoperitonium. Therefore this case highlights the importance of early ultrasound in detecting uterine anomalies and need for high clinical suspicion.

KEYWORDS

CASE REPORT:

A 27 yrs old female G2A1 with 4 months of amenorrhea came in emergency department in Shri Chhatrapati Shivaji maharaj rugnalaya, Solapur with complaints of mild spotting. On general clinical examination, no history of fever, nausea, vomiting, abdominal pain and all vital sign were normal. Past history of spontaneous abortion at three months of gestational age two years back. On per abdominal examination her uterus was around 12-14 weeks size, relaxed. On per vaginal examination uterus felt anteverted. On per speculum examination there was a single cervical opening. All lab investigation (hemogram) were normal. Patient referred to ultrasonography, on antenatal ultrasonography scan she was diagnosed with rudimentary horn pregnancy and no e/o communication with adjacent uterine horn (Endocervical communication). Pregnancy in non-communicating uterine horn showed fetal demise with absent cardiac activity (Fig-2). For future evaluation MRI pelvis was done. On MRI pelvis no visible continuity between the endocervical canal and pregnant rudimentary horn and diagnosed unicornuate uterus with rudimentary horn pregnancy (Fig-3, Fig-3, 4 a,b). Then patient immediately was taken for laparotomy. The intraoperative procedure revealed rudimentary horn pregnancy with fallopian tube attached to the rudimentary horn. There was no communication of this rudimentary horn with left sided unicornuate uterus was appreciated (Fig-5,6,7)

Hysterosalpingography was done 3 yrs back, which was suggestive of unicornuate uterus with filling of single fallopian tube on left sided and peritoneal spillage possibility suggestive of unicornuate uterus with patent left fallopian tube (Fig. 1).

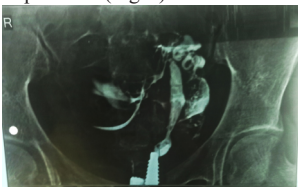


Fig-1 Unicornuate uterus with filling of single fallopian tube on left sided and peritoneal spillage suggestive patent left fallopian tube.

On ultrasonography, it was demonstrated that left sided non pregnant unicornuate horn with pregnancy in another adjacent right sided horn and no endocervical communication. Hence a non-communicating rudimentary horn pregnancy was highly suspected.



Fig 2 : Left sided non pregnant unicornuate horn (→) with pregnancy in

another adjacent right sided horn (→) and no endocervical communication.

For confirmation and further evaluation of right sided rudimentary horn pregnancy, MRI pelvis was performed. Axial T2W and coronal T2W fat suppressed images showed unicornuate uterus with non-communicating rudimentary horn containing gestational sac and embryo within.

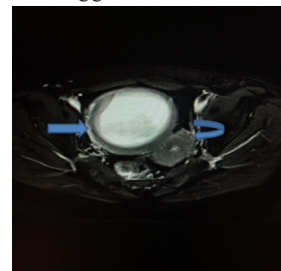


Fig-3 Axial T2W image: Left sided non pregnant unicornuate horn (→) with pregnancy in another adjacent right sided horn (→) and no endocervical communication.



Fig-4 : T2W a. Coronal view b. Sagittal view: Left sided non pregnant unicornuate horn with pregnancy in another adjacent right sided horn and no endocervical communication.

Immediate laparotomy was performed. The intraoperative procedure revealed rudimentary horn pregnancy with fallopian tube attached to the rudimentary horn. There was no communication of this rudimentary horn with left sided unicornuate uterus was appreciated. (Fig 5)



Fig-5: Right Sided Gravid Rudimentary Horn Which Was Found Intraoperatively.

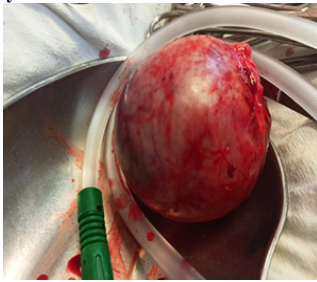


Fig-6: Post operative specimen of blind ending rudimentary on of unicornuate uterus.



Fig-7: Histopathological specimen showing intrauterine pregnancy in rudimentary orn.

DISCUSSION:

Unicornuate uterus accounts for 2.4-13% of müllerian anomalies. Out of which 83% of the cases have a contralateral rudimentary horn [1]. Pregnancy in rudimentary horn is a rare clinical condition with a reported incidence of 1 in 1, 00,000-1, 40,000 pregnancies [2]. The male gamete may migrate transperitoneally to the contralateral non-communication rudimentary horn. Rudimentary horn pregnancy is always to be considered an ectopic pregnancy and a differential diagnosis to interstitial ectopic pregnancy or a pregnancy in a bicornuate or a septate uterus, as all these will present with eccentric gestational sac. So, differentiation is often best accomplished with MRI, which will demonstrate no visible communication between the endometrial canal and the lumen of the pregnant rudimentary horn.

Rudimentary horn pregnancies have high rates of spontaneous abortion or fetal growth restrictions [3,4]. They often rupture during second or third trimester resulting in fetal demise and significant haemorrhage that can be fatal [5].

CONCLUSION:

MRI and ultrasonography are the non-invasive and useful diagnostic modalities for müllerian anomalies, it is able to reveal internal and external uterine structure without the hazards of radiations [6;7].

Due to high suspicion of ectopic rudimentary horn pregnancy, early detection was achieved with the help of MRI and further complications like failure of medically or surgically induced abortion were avoided [1]. Successful excision of the right rudimentary horn and a right fallopian tube was done so as to avoid the further chances of ectopic pregnancy [8-10].

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