Rupture of Gravid Bicornuate Uterus as a Rare Cause of Acute Abdomen: A Case Report

Arjun Agarwal*, Kiran Agarwal, Cheena Garg***,Shalini Gupta******

*Senior Resident, Department of Surgery, **Professor, Department of Gynaecology and Obstetrics, ***Assistant Professor, Department of Pathology, **** Junior Resident, Department of Gynaecology and Obstetrics, Rohilkhand Medical College, Bareilly,UP-243001

Abstracts: Pregnancy in rudimentary horn of uterus is a rare and fatal complication of mullerian duct anomaly. We report one such female presenting with acute abdomen and amenorrhea to highlight the importance of keeping this in differential diagnosis of acute abdomen of women of child bearing age. [Garg Ch NJIRM 2015; 6(1):114-115]

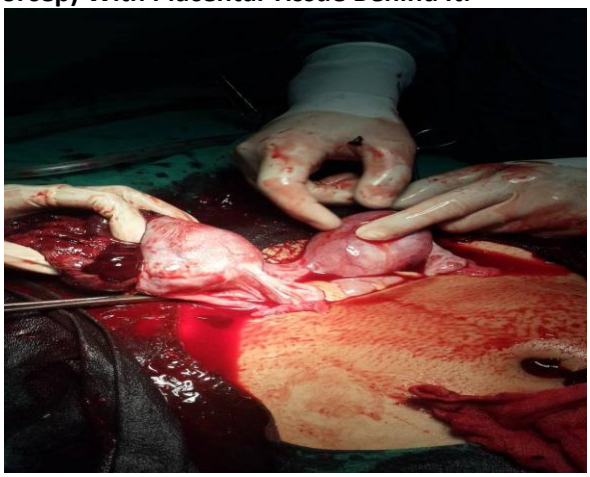
Key Words: Gravid bicornuate uterus, Rudimentary horn, Primigravida, Acute abdomen.

Author for correspondence: Cheena Garg Mailing address: 35/C-8, RAMPUR GARDEN, BAREILLY, U.P., INDIA – 243001 **Mo:** 09412290394 **Email:** cheena.garg@gmail.com

Introduction: Bicornuate uterus results from incomplete fusion of bilateral mullerian system during embryogenesis. Prevalence of ruptured rudimentary horn pregnancy is not known although incidence is reported[1,2]. Most of the mullerian abnormalities are first recognized during pregnancy. Although there is no causal association between mullerian abnormalities and infertility, they are associated with adverse pregnancy outcomes[3]. In developing countries like India majority of pregnant women are not booked for antenatal checkups due to financial problems. Most of the uterine anomalies are reported late.

Case Report: A 19 year old unbooked primi was referred to our hospital with severe pain abdomen since 8 hours. Pain was acute in onset, located in left lower quadrant of abdomen, severe in intensity, undefined character and was not associated with any aggravating or relieving factors. Pain became diffuse in 24 hours. Patient was 5 month amennhoeric. Patient had her menarche at 14 years age. Past menstrual cycles were 5-6days/25-30days cycle without dysmenorrhoea and dyspareunia. There was no significant medical, surgical or social past history. She did not take any antenatal visits. On clinical assessment on admission she was pale, in hypovolemic shock with blood pressure being 90/60 mm of Hg, pulse rate 120/min, respiratory rate 30/min, oxygen saturation 100% and oral temperature 98^{o} F . Abdominal examination revealed distended abdomen which was tender, dull at percussion with sluggish bowel sounds. On vaginal examination cervix was firm, closed and posterior in position. Posterior fornix was full and painful with cervical mobility and tenderness. Uterine size could not be made out. An Immediate bedside ultrasound revealed single fetus in peritoneal cavity of average age 17 weeks with no cardiac activity. Uterus was empty with a breach in fundal region and moderate hemoperitoneum. Patient was taken for emergency laparotomy after adequate resuscitation with informed consent.

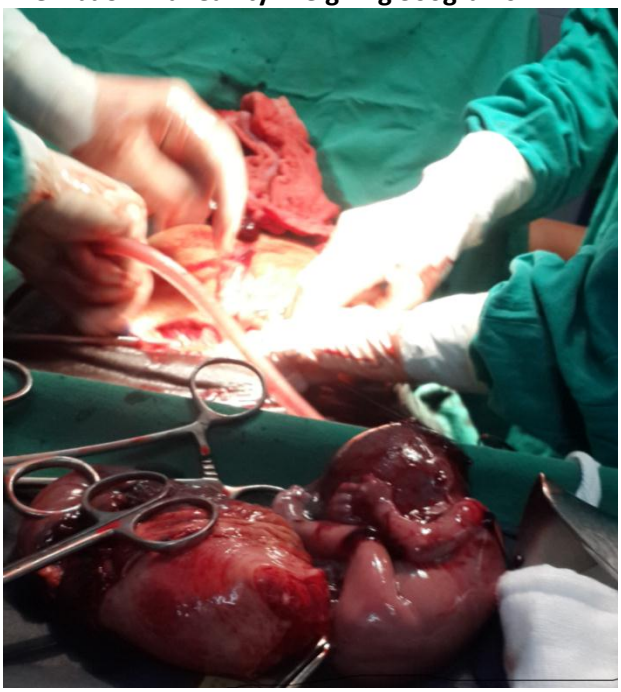
Figure 1: Shows Bicornuate Uterus With Ruptured Rudimentary Horn (Pointed By Artery Forcep) With Placental Tissue Behind It.



Intraoperative findings revealed hemoperitoneum of about 2000 ml blood with clots, bicornuate uterus with intact right horn, tube and ovary. Ruptured left rudimentary non-communicating horn at fundus was found with attached placenta (Figure1) . Left sided ovary was normal and the left tube and round ligament were attached to the ruptured horn. Nonviable fetus was lying in abdominal cavity. Fetal weight was 300 gm (Figure 2). Excision with primary repair of rudimentary ruptured horn was done with ipsilateral salphingectomy. Both ovaries were left intact. Three unit packed red blood cells were transfused. After securing hemostasis the abdomen was

closed. Recovery was uneventful and she was discharged on 8th postoperative day.

Figure 2: Shows Dead Fetus Delivered Out From The Abdominal Cavity Weighing 300grams.



Discussion: Bicornuate uterus belongs to class IV according to American society classification of mullerian abnormality[4]. It results from failure of fusion of mullerian ducts in upper part. Estimated incidence of pregnancy in rudimentary horn is 1:1000 to 1:4000 and only few cases are reported in literature of rupture of rudimentary horn of pregnant uterus[5]. There is inability of malformed uterus to expand and placenta does not adhere properly[6]. Walls of anomalous uterus are thin and can rupture.

Patient with mullerian abnormalities may remain asymptomatic or discovered during imaging procedures of surgery. They may present with pelvic pain, haematometra, endometriosis, hematocolpus, recurrent pregnancy loss, preterm delivery or acute abdomen[7]. Ultrasound can detect rudimentary horn pregnancy and rupture as in our case. Had the patient come earlier for antenatal checkups in 1st trimester, diagnosis could have been made earlier. Emergency laparotomy and surgical excision of ruptured rudimentary horn pregnancy with ipsilateral salphingectomy is treatment accepted. It can be done by operative laparoscopy which was not done in this case because of acute presentation of patient.

Conclusion: In acute abdomen in pregnant female a differential diagnosis of ruptured rudimentary horn of pregnant uterus should be kept in mind although a rare condition. Proper antenatal care is important to avoid complication of rupture. High index of suspicion is required for an early diagnosis which is the key to proper management.

References:

1. Shahid A, Olowu O, Kandasamy G, O'Donnell C, Odejinmi F. Laparoscopic management of a 16-week ruptured rudimentary horn pregnancy: a case and literature review. Arch Gynecol Obstet. 2010; 282 (2): 121.
2. Nathan H, Sornum A. Diagnosis and management of a ruptured rudimentary horn pregnancy in a low-resource setting. BMJ Case Rep. 2013.
3. Reichman D, Laufer MR, Robinson BK. Pregnancy outcomes in unicornuate uteri: a review. Fertility and sterility. 2009; 91(5): 1886-94.
4. Elyan A, Saeed M. Mullarian duct anamolies: clinical aoncept. ASJOG.2004; 1: 11-20.
5. Sfar E, Zine S, Bourghida S, Bettaieb A, Chelli H. Pregnancy in a rudimentary uterine horn: main clinical forms. 5 cases. Rev Fr Gynecol Obstet. 1994; 89:21-6.
6. Kore S, Pandole A, Akolekar R, Vaidya N, Ambiye VR. Rupture of left horn of bicornuate uterus at twenty weeks of gestation. J Postgrad Med. 2000; 46:39-40.
7. Rackow BW, Arici A. Reproductive performance of women with müllerian anomalies. Curr Opin Obstet Gynecol. 2007; 19(3):229-37.

Conflict of interest: None
Funding: None
Cite this Article as: Agarwal A, Agarwal K, Garg Ch, Gupta S, Rupture of Gravid Bicornuate Uterus as a Rare Cause of Acute Abdomen: A Case Report Natl J Integr Res Med 2015; 6 (1): 114-115