

# A Case Report On Twins Pregnancy in Bicornuate Uterus with Ruptured Right Rudimentary Horn: A Rarest Entity

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**Abstract:** *Rudimentary horn is the rare uterine anomaly and twins pregnancy in non-communicating rudimentary horn and horn rupture is the rarest condition in obstetrics. Uterine rupture is an obstetric emergency and when occur in nulliparous women generally associated with mullerian duct anomaly like unicornuate or bicornuate uterus. We present a case of 31-year-old 3<sup>rd</sup> gravida patient with bicornuate uterus and 4 month of twins pregnancy and ruptured rudimentary horn. Laparotomy done and right ruptured horn with dead fetus excised and pregnancy in another left cornu kept continue till 36 weeks' pregnancy and elective LSCS done without any maternal and fetal complication.*

**Keywords:** Bicornuate uterus, rudimentary horn, twins pregnancy, ruptured

## 1. Introduction

Mullerian duct anomalies in female results from defective fusion or resorption during embryonic life. The only possible explanation for pregnancy to occur in this case is by trans-peritoneal migration of spermatozoa or embryo through contralateral tube. The true prevalence of mullerian duct abnormalities is not well established because a majority of patients are asymptomatic. However; its prevalence is approximately 1:200–1:600 in fertile women. In spite of being relatively rare, rudimentary horn represents a serious gynecologic condition if it is implicated with pregnancy. Pregnancy in non-communicating rudimentary horn is life threatening. It is often not diagnosed unless it terminates by rupture in the 2<sup>nd</sup> trimester. Incidence of Rudimentary horn pregnancy is extremely rare ranging between 1 per 76,000 and 1 per 140,000 pregnancies. Yet, it is associated with high rate of morbidity and mortality as a sequence of rudimentary horn rupture and massive hemoperitoneum, most cases present with tachycardia, sign of fetal distress and bleeding. The treatment for ruptured horn includes fluid resuscitation and emergency laparotomy. Postpartum counseling regarding the risk of recurrent rupture in subsequent pregnancies is an important part of management in this patient. We present with an extremely rare case of spontaneously conceived twins pregnancy with bicornuate uterus and ruptured right side non communicating rudimentary horn.

## 2. Case Report

A 31 year old 3<sup>rd</sup> gravida, 2<sup>nd</sup> Para 1 IUFD (intrauterine fetal death) and 1 live (G3P2A0L1) patient came in OPD at civil hospital Ahmedabad with history of 4 months of amenorrhea and complaints of abdominal pain since 2-3 days which was associated with anorexia and vomiting. Her LMP (Last menstrual period) was 22-8-15 and EDD was 29-5-16. She has taken 1 antenatal visit in private hospital, 1<sup>st</sup> dose of

tetanus toxoid taken and diagnosed as twins pregnancy with one baby in right rudimentary horn and another in main uterine cavity and 16 weeks' maturity of both fetuses. On her obstetric history, she had one preterm vaginal delivery, with IUD (intrauterine death) male child at 7-month amenorrhea before 5-year, cause of IUD was (?) congenital anomaly in baby. History of Os tightening stitches taken at 4 and ½ months and removed at 36 week in 2<sup>nd</sup> pregnancy followed by FTEMLSCS (Full term emergency cesarean section) with 3-year male child, indication for cesarean section was meconium stained liquor, occurs at civil hospital Ahmedabad. Per op findings suggestive of right rudimentary horn present. No history of any MTP (medical termination of pregnancy), abortion and contraception. Her past history and family history were not significant. No any history of chronic illness and blood transfusion. Patient admitted in obstetric ward for further management. Her general condition was fair, her pulse was 98 beat per minute, her blood pressure was 110/70 mmHg. Her temperature was normal, No pallor, cyanosis, clubbing, icterus and lymphadenopathy were noted.

On systemic examination, Respiratory system and cardiovascular system was clear. On per abdomen examination, Previous LSCS (Lower segment cesarean section) transverse scar present, Healthy, non-tender, uterus 24 weeks size and more deviated towards right side and relaxed.

On per speculum examination no any discharge or bleeding found. On per vaginum examination cervical os closed. All routine investigations and ultrasonography done. Ultrasonography suggestive of twins pregnancy with maturity of 1<sup>st</sup> baby was 16 weeks, located in main uterine cavity and cardiac activity was present, liquor adequate and placenta anterior and maturity of 2<sup>nd</sup> baby was 16 week and 2 days, located in right rudimentary horn and cardiac activity was present, liquor was adequate and placenta posterior, no evidence of congenital anomalies were noted in both fetuses.



**Figure 2:** Ultrasonography findings

On other laboratory investigation, her hemoglobin was 9.6gm/dl, total count was 11000 per cumm, Platelet counts was 244,000 per cumm. LFT and RFT within normal limit, HIV and HBSAG were non-reactive and blood group was B positive and INR were 0.92. As patient had constant abdominal pain since 3 days, elective exploratory laparotomy was planned to excise rudimentary horn and fetus inside it. 2<sup>nd</sup> dose of injection T.T. and pre-op antibiotics given. Planned exploratory laparotomy with transverse incision under spinal anesthesia was done.

### 3. Per op Findings

Moderate hemoperitoneum present, approx. 100 cc blood and clots present. Right rudimentary horn found ruptured with placenta inside the horn and fetus was in the abdominal cavity and died. Blood and clots removed, fetus and placenta with ruptured rudimentary horn brought out and stalk of rudimentary horn caught clamped and doubly transfixed. Right side ovary and tube preserved. Left side ovary and tube were normal.



**Figure 2:** Ruptured rudimentary horn with fetus

Per op. 1 unit PCV was transfused. Injectable antibiotics given for 5 days and injectable tocolytics and tranexamic acid for 48 hours. Then tablet Isoxsuprine retard- 40 mg,

1 HS (hora somni) and capsule susten 1HS per vaginum given, and oral antibiotics for 3 days given. SR (suture removal) done on post op day-7, stitch line healthy patient discharged on tablet. Tidillan retard 40mg 1hs, cap. Susten 1hs and oral hematinic. Regular antenatal follow up every 15 days advised.

Patient came for follow up in OPD after 15 days. Patient had no any complaints. On per abdomen examination. Laparotomy scar healthy, Uterus 16 -18-week size, External Ballotement present and uterus relaxed.

Per vaginum examination, cervical os closed. On follow up antenatal sonography after 2 weeks fetal maturity was 21-22 weeks, cardiac activity present liquor was adequate and placenta was anterior. her blood pressure was normal and urine albumin nil. Antenatal follow up every 15 days till 32

weeks done. At 8 months, patient developed mild gestational hypertension so that antenatal Doppler advised. Antenatal Doppler indices normal with average fetal maturity was 33 weeks and liquor was adequate. Then weekly antenatal follow up and strict blood pressure monitoring done. After completing 36 weeks patient admitted from OPD in obstetrics ward for elective cesarean section. Her blood pressure was 120/80mmhg, and pulse 102 beat per minute. No pallor present and no any complaints on admission, ultrasonography done, maturity was 36 weeks 3 days, liquor adequate and placenta anterior. Pre-op Hb was 11.6 gm./dl all other investigations were within normal limits. Elective cesarean section under spinal anesthesia done, male child of 3.2 kg delivered with full term maturity and Apgar 6/7/8 and kept with mother. Per op tubal ligation done. No any per op complication occurs. Post operatively Injectable. Antibiotics for 3 days then oral antibiotics for 5 days given. SR ( suture removal) done on post op day -8, stitch line healthy Patient discharged on oral hematinic on pod-8.

### 4. Discussion

The true prevalence of congenital malformation of the female genital tract in the general population is unknown. Congenital uterine anomalies associated with increased rate of pregnancy loss, preterm deliveries, malpresentation and perinatal morbidity and mortality. In the majority of the cases presence of upper genital tract anomaly remain undiagnosed, in some cases it diagnosed accidentally during investigations for infertility, repeated pregnancy loss, diagnostic D&E procedure, manual removal of placenta or during cesarean section. Mullerian duct anomaly in this case was bicornis uniconis uterus with noncommunicating right rudimentary horn and twins pregnancy with one fetus in main cavity and another in right rudimentary horn. Outcome of the pregnancy in this type pregnancy with uterine anomaly depend on the capability of the uterine fundus to expand and contract and on the dilating capacity of the cervix.

There is no specific guideline for management of pregnancy in a bicornuate uterus. It is decided according to specificities of individual case. Rupture in such a case occurs due to inability of malformed uterus to expand as normal uterus. Mid trimester rupture usually occur at fundus while rupture during labor occurs at lower segment. Hemorrhage occurring because of rupture is massive and can be life threatening unless diagnosed and treated promptly. Treatment usually involved is removal of ruptured horn. Immediate resuscitation and early intervention can save the life of mother and at times of the fetus. As it leaves scar on upper part of the uterus it is important to avoid pregnancy for at least one year by barrier or hormonal contraceptives.

### 5. Conclusion

Uterine abnormalities though rare can be encountered in pregnancy. Attempt should be made for early diagnosis to avoid maternal mortality. Ultrasonography may be helpful in early diagnosis of such cases and rupture can be avoided if enraptured horn excised by laparotomy, which decrease maternal morbidity and mortality. There is need to establish

health system for early antenatal diagnosis of such cases to ensure appropriate management. As in this case bicornuate uterus was diagnosed during 1<sup>st</sup> cesarean section and twins pregnancy with bicornuate uterus with one baby in main uterine cavity and 2<sup>nd</sup> baby in right rudimentary horn so that it was easy for us to manage the case and outcome with one healthy baby without any maternal morbidity. Although cases of twin pregnancy in bicornuate uterus have recorded worldwide further study need to be undertaken to set specific guideline for management and worldwide register needs to be maintained to report cases and consistently improve pregnancy outcome and fetal survival rate.

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