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CASE REPORT

An Unusual Case of Twin Pregnancy associated with Rudimentary Horn Rupture

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ABSTRACT

Twin pregnancy in association with rudimentary horn pregnancy is extremely rare and more so in spontaneous conceptions. Rudimentary horn pregnancy coexistent with an intrauterine pregnancy usually results in rupture of the rudimentary horn and death of the correspondent twin. We report an unusual case of twin pregnancy following spontaneous conception in association with rudimentary horn rupture.

Keywords: Pregnancy, Rudimentary horn pregnancy, Twin pregnancy.

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A 28-year-old $G_2P_1L_1$ with 5 months amenorrhea was admitted with complaints of painful abdomen since 2 days and backache, vomiting, weakness, and dizziness since 1 day. There was no history of fever, trauma, bleeding per-vaginum or any intervention, induction of abortion or instrumentation, and no history of induction of ovulation. Her last delivery was 3 years back, and it was a full-term normal delivery. On examination, her general condition was poor, pulse rate was 140 per minute, blood pressure was 120/60 mm Hg, and extreme pallor was present. On abdominal examination, there was distension and tenderness, bowel sounds were present, uterine contour could not be made out well on the right side, and fetal parts could be felt, but fetal heart sound could not be heard. On per-vaginum examination, OS was closed and there was no bleeding. Her hemoglobin was 4 gm%. Sonography revealed twin pregnancy corresponding to 19 weeks gestation. There was no cardiac activity in either of the fetuses. There was significant free fluid in peritoneal cavity. There was suspicion of bicornuate uterus with an intervening uterine tissue seen between the two horns. Two separate placentae were seen. Right side of the myometrium showed heterogeneous irregular wall suggestive of rupture. Liver, gall bladder, kidneys, spleen, pancreas, and urinary bladder appeared normal. Sonographic-guided paracentesis was done and dark-colored blood drained in free flow. Patient was prepared for urgent laparotomy. At laparotomy, gross hemoperitoneum was seen. Plenty of blood clots and approximately 2.5 L of blood were drained out. Right-sided noncommunicating rudimentary horn was found to be ruptured as seen in Figure 1. A dead male fetus lying in peritoneal cavity was removed. Placenta and membranes were adherent badly inside the horn as seen in Figure 2. Normal uterine horn was seen on the left side. Hysterotomy was performed by transverse incision in the lower uterine segment, and a dead male fetus removed along with the placenta and membranes. Uterus was stitched in the usual way. Right-sided rudimentary horn was excised and the stump repaired. Supportive care and blood transfusion was given. Her

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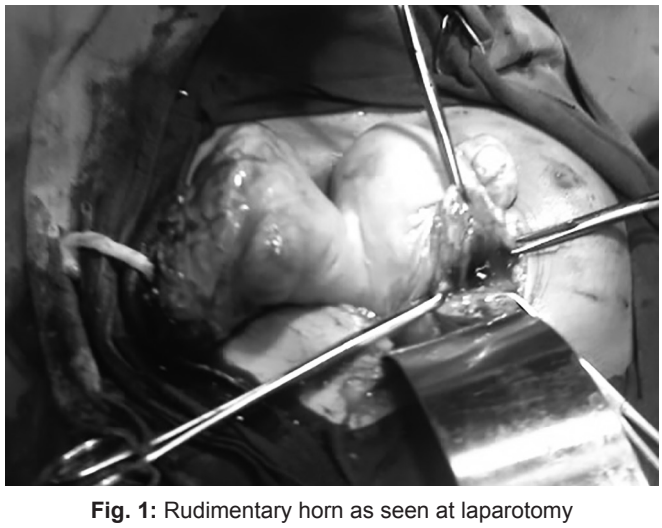

Fig. 1: Rudimentary horn as seen at laparotomy

Fig. 2: Excised rudimentary horn with adherent placenta along with twin fetuses

postoperative period was uneventful. Histopathology of the excised horn revealed pregnant uterus and placenta consistent with rudimentary horn of uterus. Placental villi were seen enmeshed into the myometrium.

DISCUSSION

Pregnancy in a noncommunicating rudimentary horn is very rare. The incidence of rudimentary horn pregnancy (RHP) is between 1 per 76,000 and 1 per 140,000 pregnancies.[1] The only possible explanation for pregnancy to occur in this case is by transperitoneal migration of spermatozoa through the contralateral tube. The natural history of RHP is usually rupture of the pregnant horn during the second or third trimester, resulting in life-threatening heavy bleeding. Early prerupture diagnosis is rare. Two cases of RHP diagnosed in the first trimester by sonography and confirmed by magnetic resonance imaging (MRI) were reported.[2] Both patients underwent surgery, and the pregnant rudimentary horns were resected with no complications. The authors suggested the following criteria for sonographic diagnosis of RHP: (1) Pseudopattern of asymmetrical bicornuate uterus, (2) absent visual continuity tissue surrounding the gestational sac and the uterine cervix, and (3) the presence of myometrial tissue surrounding the gestational sac. Typical hypervascularization of placenta accreta may support the diagnosis. Additionally, MRI could be used to confirm the diagnosis before an invasive procedure is undertaken.

Twin pregnancy in association with RHP is extremely rare and more so in spontaneous conceptions. The RHP coexistent with an intrauterine pregnancy usually results in rupture of the rudimentary horn and death of the correspondent twin. In the first reported case of an RHP coexistent with an intrauterine pregnancy, the patient presented at 19 weeks gestation with acute abdominal distress. A ruptured left RHP was found at laparotomy. The rupture was repaired. Preterm labor ensued 24 hours later, with resultant delivery of the second twin from the right cornu despite aggressive tocolysis.[3]

Ejnès et al[4] first reported multiple gestation with the two siblings successfully delivered by cesarean section in the two horns of a unicornuate uterus with rudimentary horn before onset of any complication. Neonatal survival in rudimentary uterine horn pregnancies is poor, occurring in only 11% of cases during the past half century.[5] Surviving twins were born to a woman with a unicornuate uterus having a noncommunicating rudimentary uterine horn; this was the first such case reported according to Nahum.[5] The probability of attaining a favorable outcome is increased if aggressive antenatal management is instituted after establishing an early prenatal diagnosis. In the case of dual-chamber uterine anomalies, it is possible to effect surgical delivery of one fetus while maintaining a second preterm fetus *in utero*. This maneuver can decrease preterm morbidity for later-born siblings and enhance neonatal survival.

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