A Rare Case of Pregnancy in the Rudimentary Horn of Unicornuate Uterus (on Table Diagnosis) Which had a Successful Outcome: A Case Report

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ABSTRACT

Pregnancy in the rudimentary horn is rare and it carries grave consequences for the mother and the foetus. The continuation of the pregnancy till the third trimester is still rare and it usually ruptures in the second trimester. Here is a case of a 28 year old, gravida 2, para 1 living 1 lady with rudimentary horn pregnancy at a gestational age of 30 weeks. Laparotomy was done and the rudimentary horn was excised. The post-operative recovery was uneventful.

Key Words: NHL, Osteolytic lesion, Transpedicular biopsy, Immunohistochemistry

INTRODUCTION

Pregnancy in a rudimentary horn of a unicornuate uterus is rare [1]. An incidence of 1 in 76,000–1,50,000 pregnancies has been reported in the literature [2,3]. We present here, a case report of unruptured pregnancy in the non-communicating rudimentary horn of a unicornuate uterus.

CASE PRESENTATION

The 28-year-old, gravida 2, para 1 living 1 was referred to our hospital with severe oligohydramnios. There was one episode of fever, 2 days prior to the admission, which was not associated with the leaking and bleeding per vagina. Ultrasonography, which was done in the first trimester showed a bicornuate uterus with viable gestation in the left horn, which corresponded to 11+6 weeks of the gestational age. A recent scan report showed severe oligohydramnios. At presentation, she looked well, with a pulse rate of 88bpm and a BP of 120/80 mmof Hg. Her height was 152 cm and her weight was 63 kg respectively. Her uterine height corresponded to 26-28 weeks and she was relaxed, with an FHR of 148bpm. There was no leaking per vagina. ? PPROM. Her Hb

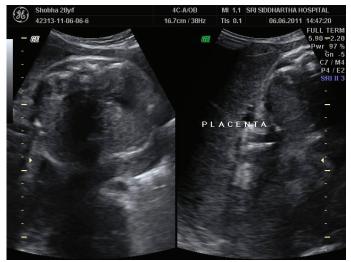


was 10.6g/dl, her RBS was 98mg/dl, urine routine and micro-WNL. A transabdominal scan was performed and the findings were as follows- bicornuate uterus with empty horn on the right side and pregnancy in the left horn of the uterus with a single live intrauterine foetus at 28+3 weeks of gestational age with severe oligohydramnios, the right uterine artery showing an early diastolic notch. The left uterine artery and the umbilical artery showed a normal flow pattern. The EFW was of 1.2kg [Table/Fig 1 to 8].

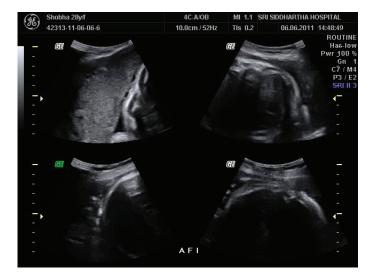
Labour was induced with T.misoprostol 50micro gram for 6 hours, followed by extra amniotic saline infusion for 6 hours. There were no complications which were associated with the attempts for the induction of labour. Based on the two failed attempts for the induction of labour, she was counselled and prepared for a caesarean section. The findings at surgery were: a slightly bulky uterus; there was pregnancy in the left rudimentary horn of the uterus which was attached to the cornu of the uterus. The cavity of the horn did not communicate with the uterine cavity. The left fallopian tube was of normal length and it was attached to the rudimentary horn. The left ovary was normal and it was attached by its ligament to the rudimentary horn. The right tube and the



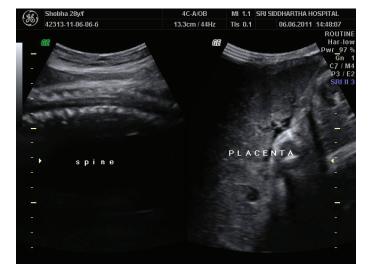


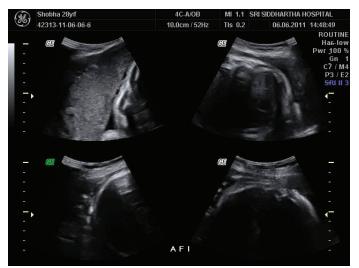






ovary were normal. Intra-operative photograph showing the anterior view of the uterus with the rudimentary horn attached to its left superior border. The left tube, the ovarian ligament and the round ligament were clamped cut and transfixed. The rudimentary horn was excised and the foetus was extracted from the horn. The baby which weighed 820gm, cried after 2-3 minutes following resuscitation. The placenta and the membranes were intact. The mother's post-operative recovery was normal. She was discharged on the 8th post operative day and was given a 6 weeks follow-up appointment. The baby died on the 7th day.





DISCUSSION

A rudimentary horn with a unicornuate uterus results from the failure of the complete development of one of the mullerian ducts and incomplete fusion with the contralateral side. In 83% of the cases the rudimentary horn has been found to be non-communicating [4]. Pregnancy in a non-communicating rudimentary horn occurs through the transperitoneal migration of the sperm or the fertilized ovum [5]. It is associated with intrauterine growth retardation, intraperitoneal haemorrhage and uterine rupture [6]. A diagnosis prior to the rupture is unusual, but it could be made with ultrasonography and MRI. Tsafrir et al outlined a set of criteria for diagnosing pregnancy in the rudimentary horn [7]. 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 of the cases remain undiagnosed until it ruptures and presents an emergency. The patient presented at a G.A. of 30 weeks with clinical features which were suggestive of a bicornuate uterus with pregnancy in the left horn. However, the initial ultrasound scan indicated that the pregnancy was viable. Due to a failed induction, an emergency caesarean section was done. The usual outcome of the rudimentary horn pregnancy is rupture in the second trimester in 90% of the cases, with foetal demise [8]; however, cases of pregnancies which progressed to the third trimester and resulted in live births after caesarean section have been documented [6].

It has been recommended by most of the obstetricians, that immediate surgery must be performed whenever a diagnosis of pregnancy in a rudimentary horn is made, even if it is unruptured [9]. However, conservative management until viability is achieved, has been advocated in very few selected cases with a larger myometrial mass, if emergency surgery can be performed anytime and if the patient is well-informed [10]. Pregnancy in a rudimentary horn carries a grave risk to the mother. There is a need for an increased awareness on this rare condition and to have a high index of suspicion, especially in developing countries where the possibility of an early detection before the rupture is unlikely.

ABBREVIATIONS

GA: Gestational age; mm: Millimetres; mmHg: Millimetres of mercury.

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CONSENT

A written informed consent was obtained from the patient for the publication of this case report and the accompanying images.

REFERENCES

- [1] Tufail A, Hasmi HA. Ruptured ectopic pregnancy in a rudimentary horn of the uterus. *J Coll Physicians Surg Pak* 2007; 17:105-6.
- [2] Ural SH, Artal R. Third trimester rudimentary horn pregnancy. A case report. *J Reprod Med* 1998; 37:919-21.
- [3] Nahum G. Rudimentary uterine horn pregnancy: a case report on surviving twins who were delivered 8 days apart. *J Reprod Med* 1997; 42:525-32.
- [4] Heinonen PK. A unicornuate uterus and a rudimentary horn. Fertil Steril 1997; 68:224-30.
- [5] Panayotidis C, Abdel-Fattah M, Leggott M. Rupture of the rudimentary horn of a unicornuate uterus at 15 weeks of gestation. *J Obstet Gynaecol* 2004; 24:323-4.
- [6] Shin JW, Kim HJ. A case of a live birth in a non-communicating rudimentary horn pregnancy. *J Obstet Gynaecol Res* 2005; 31: 329-31.
- [7] Tsafrir A, Rojansky N, Sela HY. Rudimentary horn pregnancy: first trimester pre-rupture sonographic diagnosis and confirmation by magnetic resonance imaging. J Ultrasound Med 2005; 24:219-23.
- [8] Liu MM. Unicornuate uterus with a rudimentary horn. Int J Gynaecol Obstet 1994; 44:149-53.
- [9] Jayasinghe Y, Rane A, Stalewski H. The presentation and the early diagnosis of a rudimentary horn. *Obstet Gynecol* 2005; 105: 1456-67.
- [10] Nahum G. Rudimentary horn pregnancy: the 20th century worldwide experience of 588 cases. J Reprod Med 2002; 47:151-63.

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