

Case Report of Rudimentary Horn Pregnancy

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Abstract: *Aim: To Report a Case of Rudimentary horn pregnancy in the Government Maternity Hospital (Tertiary care hospital).*

Keywords: Rudimentary horn, uterine malformations, MRI, Magnetic Resonance Imaging, USG, Ultrasonography, Laparoscopy, Emergency laprotomy

1. Introduction

Rudimentary horn of uterus is rare condition with a incidence of 1 in 1,00,000 to 1,40,000 pregnancies. Usually the diagnosis is missed and may present as emergency with hemoperitoneum. The use of ultrasonography helps clinicians to diagnose uterine malformations earlier, which can be confirmed with MRI (Magnetic Resonance Imaging) or Laparoscopy. The standard treatment is the surgical excision of horn (1)

2. Case Report

A 35year old female house wife, resident of pileru came to emergency room with complaints of severe lower abdominal pain more on right side since 2 days. She is Para 2 Live 2 woman. History revealed 4 months of amenorrhea and not tubectomised, her two prior deliveries were full term, institutional, normal vaginal deliveries.

On physical examination patient was conscious and coherent. Pulse rate: 116 bpm, blood pressure 100/60mmof Hg, Temperature: 98.6F Respiratory Rate: 18/min. P/A uterus corresponding to size of 16 weeks, tenderness present in hypogastric and right iliac fossa. P/S examination revealed cervix and vagina healthy. BME uterus corresponds to 16 weeks with right forniceal tenderness. Urine pregnancy test was positive. Paracentesis was done and there was no hemoperitoneum.

Ultrasound was done which showed curved elongated uterus with tapering of fundal segment. Rudimentary horn noted with endometrial communication with other horn. A single live intrauterine gestation noted in endometrial cavity of Rudimentary horn with 14 weeks of gestational age.



She was investigated and emergency laparotomy was done which revealed an ectopic pregnancy in the rudimentary horn. And incision is given over the rudimentary horn and a alive fetus of 220 grams delivered. Placenta noted in the rudimentary horn and removed. Rudimentary horn excised and bilateral tubectomy done.

The postoperative period was uneventful and patient was discharged on seventh day. A histopathological examination confirmed the diagnosis. There was no infiltration of the chorionic villi into the myometrium.

3. Discussion

Uterine anomalies result from failure of complete fusion of

the mullerian ducts during embryogenesis. A unicornuate uterus with a rudimentary horn is the rarest anomaly and results from failure of one of the mullerian ducts to develop completely and incomplete fusion with contralateral side (2).

Incidence of anomaly is approximately 0.4%. In the majority of cases, the rudimentary horn is non communicating. The anatomical variations of a rudimentary horn serve as the basis for classification of a unicornuate uterus by the American Society of Reproductive Medicine (ASRM).

Pregnancy in a rudimentary horn was first described by Mauriceau and Vassal in 1669. (3). The reported incidence is 1 in 1,00,000 to 1,40,000(4). The most accepted explanation is transperitoneal migration of sperm cells or a fertilised ovum. This explanation was supported by the observation of corpus luteum in the contralateral ovary. It is uncommon for such cases to result in a viable baby. These cases usually result in the rupture of horn in second or third trimester, typically between the 10th and 20th week of gestation, although a rupture has been reported at 34 weeks. The rupture occurs because of the underdevelopment of the myometrium and a dysfunctional endometrium. A rudimentary horn pregnancy can be further complicated by placental percreta due to the poorly developed musculature and the small size of horn; the reported incidence is 11.9% (4). Placenta percreta can be confirmed by a histological examination from as early as seven weeks.

The key for diagnosis prior to rupture is a high index of clinical suspicion. A history of severe dysmenorrhoea may be a clue for diagnosis. The rudimentary horn may be underdeveloped and its endometrium is nonfunctional, so dysmenorrhoea may be absent. A careful pelvic examination in first trimester showing a deviated uterus with palpable adnexal mass should provoke suspicion of a mullerian anomaly. It can be confirmed by ultrasound or MRI. Tsafir et al. suggested the following criteria for diagnosing a rudimentary horn pregnancy: a pseudopattern of asymmetrical bicornuate uterus; absent visual continuity between the cervical canal and lumen of pregnant horn, and the presence of myometrial tissue surrounding the gestational sac. Ultrasound sensitivity remains only 26%. The enlarging horn with the thinned myometrium can obscure the adjacent anatomical structures and the sensitivity further decreases as the gestation progresses. MRI has proven to be a very useful diagnostic tool.

Approximately 38% of patients have coexisting renal abnormalities. Unilateral renal agenesis is most commonly found; this is always ipsilateral with the rudimentary horn (5). The differential diagnosis includes a tubal, corneal or intrauterine pregnancy in a bicornuate uterus. Ultrasonography may help to diagnose. A tubal pregnancy will not show a ring of the myometrium surrounding the gestational sac. A variation in thickness of myometrium in two horns and a marked distance between them favour the diagnosis of a rudimentary horn pregnancy. The continuity between the endometrium lining the gestational sac and the other uterine horn is typical for a pregnancy in a bicornuate uterus (6)

Immediate surgery is recommended whenever diagnosis of

pregnancy in rudimentary horn is made. The traditional treatment is a laprotomy and the surgical removal of pregnant horn to prevent rupture and recurrent rudimentary horn pregnancies. In recent years, several cases were treated by Laparoscopy. Some authors described systemic methotrexate administration or feticide with intracardiac potassium chloride as alternatives or adjuncts to surgery.

4. Conclusion

Women with unicornuate uterus associated with a rudimentary horn may experience various pregnancy and non pregnancy related Complications including endometriosis, hematometra, infertility, recurrent miscarriages, uterine rupture and abnormally adherent placenta. Renal tract abnormalities also occur in 38% of such patients. Due to thin and poorly developed myometrium, most rudimentary horn pregnancies rupture between 10-20 weeks of gestational age. Therefore once diagnosed management of such pregnancies includes excision of Rudimentary horn along with ipsilateral fallopian tube to prevent future ectopic pregnancies. Planned removal of Rudimentary horn is advised when those are diagnosed pre-pregnancy in women who desire future pregnancy.

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