

CLINICAL IMPLICATIONS OF CONGENITAL UTERINE ANOMALY- A RARE CASE OF "RUPTURE OF LEFT RUDIMENTARY HORN IN UNICORNUATE UTERUS IN 2ND TRIMESTER OF PREGNANCY"

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ABSTRACT

BACKGROUND

The malformations of the reproductive tract are rare in general population, constituting 1% in normal fertile female. In patients with recurrent pregnancy loss, the prevalence is 3.3%. Identification of symptoms and timely diagnosis by 3 dimensional USG and MRI is the gold standard⁽¹⁾ in delineating uterine anomalies and referred to centres with experience in the treatment of complex genital malformations⁽²⁾ in patients with miscarriage and infertility. In addition, owing to the high risk of maternal morbidity and mortality secondary to rupture and intraperitoneal haemorrhage, excision of the communicating rudimentary horn is strictly indicated when identified.

KEYWORDS

Unicornuate Uterus, Rudimentary Horn, Second Trimester of Pregnancy, Rupture, Maternal Morbidity.

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BACKGROUND

The malformations of the reproductive tract are rare in general population but are commonly encountered in women with subfertility and infertility. The prevalence of the malformations of the female genital organs constitute about 1% in normal fertile and subfertile women. The prevalence of about 3.3% is seen in cases of recurrent pregnancy loss. The urogenital differentiation in the embryos is rather a complex process involving genetic, hormonal and environmental influences. Since the genital and urinary system develops in close relationship, developmental errors in both the systems often coexist. Some anomalies are obvious at birth, but most come to life only at puberty when the birth fails to mislead. Congenital uterine anomalies resulting from abnormal formations, fusion or resorption of the Mullerian ducts comprise 5.5% of an unselected population, 8.0% of infertile women, 13.3% with miscarriage and 24.5% of women with infertility and miscarriage.⁽³⁾

Case Report

A 31-year-old female, G2, P2, L1, previous LSCS with H/O 5 months' amenorrhoea came to the labour ward – MGMGH Hospital & KAPV Govt. Medical College, Trichy as an acute emergency with complaints of acute abdominal pain and giddiness since 3 hours. She is married from past 3 years. Her LMP was 10.1.2017. She had a previous fullterm LSCS done for non-progress of labour, delivered a baby weighing 2.5 kg in a private hospital. No intraoperative findings in the patient record. During the current pregnancy, she didn't undergo any antenatal visits. There is no investigatory report available. On examination, her general condition was extremely poor, she was conscious, with severe pallor, haemodynamically unstable

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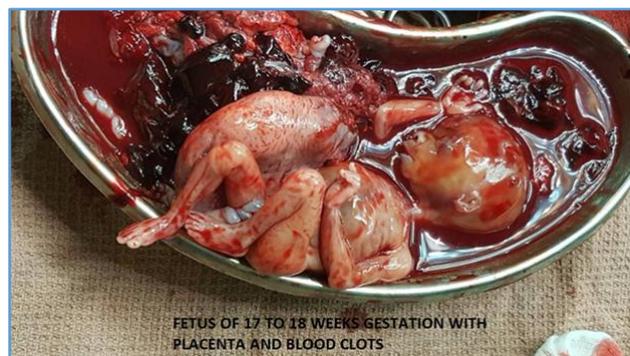
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with pulse rate of 130 bpm, BP-80/40 mmHg, with SpO2 94%. On obstetric examination, the abdomen was distended, tense, tender, uterine size not made out, uterine contour not made out, the bladder was catheterised, clear urine drained of 100 mL. On per vaginal examination, cervix uneffaced, os closed, no bleeding PV. All vaginal fornices full with tenderness.

USG done immediately in the labour ward revealed a single live crumpled foetus noted free in the peritoneal cavity outside the uterus, gestational age of 17 to 18 weeks, foetal bradycardia noted. Uterus – contour appeared normal, endometrial cavity appeared normal, significant haemoperitoneum noted up to the level of hypochondrium. Impression: ?Ruptured uterus/?Secondary intraabdominal pregnancy with significant haemoperitoneum with live foetus 17 to 18 weeks in the peritoneal cavity.

The patient was rushed to the emergency operation theatre, intubated, inotropes infusion started, proceeded with exploratory laparotomy. Peroperative findings revealed unicornuate uterus with ruptured rudimentary horn on the left, with the foetus lying free in the peritoneal cavity with significant haemoperitoneum along with 300 grams of blood clot. The ruptured rudimentary horn on the left side was excised and repair done with haemostasis achieved. She was transfused with 4 units of packed RBCs, 2 units of fresh frozen plasma. At the end of abdominal closure, her vitals stabilised, shifted to ICU on inotropes infusion for 2 hours. The immediate post-operative period was uneventful. Sutures removed on 8th day. And the wound was healthy.



FETUS OF 17 TO 18 WEEKS GESTATION WITH PLACENTA AND BLOOD CLOTS



DISCUSSION

It is desirable to recapitulate the development of Mullerian duct in short. The arrested development of one of the Mullerian duct results in the unicornuate uterus present in 14% of the series of HSG cases⁽⁴⁾ while investigating for cases of infertility/bad obstetric history. The developmental arrest of one Mullerian duct results in the formation of uterus and fallopian tube entirely from the other Mullerian duct. Often a solid non-function horn is present, but remains undiagnosed and renal anomalies coexist. It accounts for 1 -2 % of all uterovaginal anomalies. Unicornuate uterus is associated with rudimentary horn in 65% cases and 31% contained endometrial tissue⁽⁵⁾ and only half of these communicated with the main uterine cavity. Pregnancy in non-communicating horn may be conceived rarely by intra-abdominal transit of sperm from the normal horn associated with high incidence of ruptured uterus. Sometimes, a narrow communicating channel exists between the rudimentary horn and the opposite uterine cavity under the circumstances pregnancy is possible. Rupture of rudimentary horn occurs before 20 weeks usually going to the high risk of maternal morbidity and mortality consequent to rupture of the horn and massive intraperitoneal haemorrhage excision of the communicating rudimentary horn is strictly indicated when identified at any time. Hence, a high index of clinical suspicion coupled with the use of 3D ultrasonogram and MRI⁽⁶⁾ may enable us to diagnose before rupture of rudimentary horn.

Thus, the modern technologies in reconstructive surgeries for congenital anomalies have yielded good results and enabled the patients to be satisfactorily rehabilitated. MRI nowadays is a well-established cross-sectional imaging modality which provides multiplanar imaging capability with high soft tissue contrast resolution. MRI unlike CT has no adverse effect on pregnancy/embryo/foetus/future reproductive potential of the ovary.

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