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Pregnancy in an anomalous uterus: A case report

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Abstract

Mullerian duct anomalies (MDAs) are congenital defects of the female genital system that arise from abnormal embryological development of the Mullerian ducts. Congenital uterine anomaly is a risk factor for preterm, low birth weight and malpresentations. In our case report cesarean section was done for breech presentation and it was an incidental intra operative finding of unicornuate uterus with rudimentary horn.

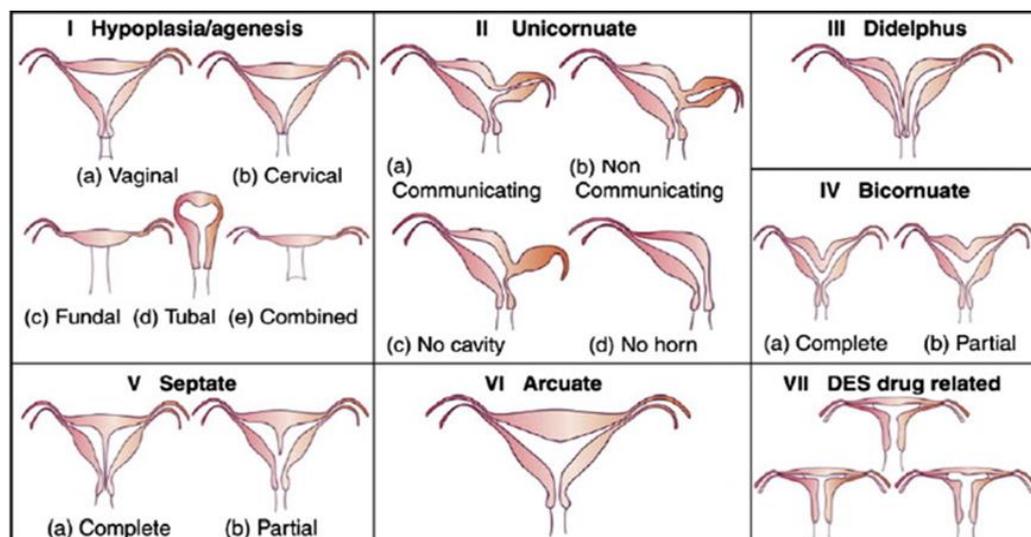
Keywords: Unicornuate uterus, mullerian anomalies, rudimentary horn

Introduction

Mullerian duct anomalies (MDAs) are congenital defects of the female genital system that arise from abnormal embryological development of the Mullerian ducts. These abnormalities can include failure of development, fusion, canalization, or reabsorption, which normally occurs between 6 and 22 weeks in utero. Most sources estimate an incidence of these abnormalities to be from 0.5 to 5.0% in the general population [1-4].

Many are asymptomatic and therefore unrecognized. Diagnosis is usually made with clinical presentations of infertility, miscarriage, premature birth, abnormal fetal presentation, cyclic pain, or as incidental findings during pelvic or sonographic examinations. They occur due to partial development of the Müllerian ducts. Increasing degrees of abnormal lateral fusion of the ducts can form the arcuate uterus, bicornuate uterus and uterus didelphys. Such anomalies can be symmetric or asymmetric, and the uterine horns obstructive or non-obstructive. Failure of fusion may lead to failure to cannulate, with no endometrium developing within the uterine horns. Any portion or segment of a duct may experience agenesis [5]. Renal anomalies occur in 29% of Mullerian Duct Anomalies and are more commonly associated with unicornuate uteri than with other MDA [12]. They are reported in roughly 40% of unicornuate patients and are ipsilateral to the rudimentary horn [12].

In uterine anomalies mostly the cesarean section is performed for malpresentation. Congenital uterine anomaly is a risk factor for preterm, low birth weight and malpresentations [6].



American fertility society classification of uterine malformations

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Case report

A 30 year old unbooked, primigravida with 38 weeks period of amenorrhea presented to our hospital with leaking per vaginam for 4 hours.

As per history she attained menarche at age of 14 years and her past menstrual cycles were regular occurring at 28 days interval lasting for 3-4 days associated with mild dysmenorrhea.

On examination, she was afebrile with blood pressure of 120/70 mmHg in supine position in left upper limb, heart rate of 90/minute and Respiratory rate 18/minute. She had antenatal blood investigation done in dispensary and had no ultrasonography report.

On examination, fundal height was corresponding to period of gestation with breech presentation with relaxed uterus having regular fetal heart rate of ~130 beats per minute.

On per vaginal examination, findings were-cervical os was one finger loose, un effaced, posterior, leaking per vaginam present, clear liquor with breech presentation.

Condition of the patient was explained to the attendants and after their consent patient was taken up for cesarean section with her preoperative investigations with in normal range.

A male baby weighing 2.4kg was delivered as breech. Baby cried immediately after birth.

After the removal of placenta when uterus was examined it was unicornuate with rudimentary horn on right side which on clinical examination during surgery was found to be non communicating with bilateral tubes and ovaries normal and healthy.

Her intraoperative and postoperative period remained uneventful. Postoperative ultrasonography KUB (kidney urinary bladder) was done which was normal.



Arrow pointing towards rudimentary horn



Picture showing uterus with right rudimentary horn

Discussion

Normal development of the female reproductive tract involves a series of complex processes characterized by the differentiation, migration, fusion, and subsequent canalization of the Mullerian system. The prevalence ranges from 4 to 7 % among the general population and much higher among high risk population such as recurrent aborters [13].

Women with canalization defects, such as septate and subseptate uteri, appear to have the poorest reproductive performance; in addition to having a reduced conception rate, they are at increased risk of first-trimester miscarriage, preterm birth and fetal malpresentation at delivery [7].

Unification defects, such as the bicornuate, unicornuate and didelphic uterus, do not appear to reduce fertility but are associated with aberrant outcomes throughout the course of pregnancy. The exact effects are, however, dependent on the type of anomaly.

Women with bicornuate and unicornuate uteri have an increased risk of miscarriage, preterm birth and fetal malpresentation while women with uterus didelphys seem to have only a modestly increased risk of preterm labor [8-11].

The unicornuate uterus is the most un common anomaly and in a study by nagarathanamma *et al.* [14] had only one unicornuate uterus, which went up to term pregnancy with breech presentation and underwent cesarean section.

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