

Bicornuate Uterus-A Case Report

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Abstract

The incidence of the uterine malformations is estimated to be 3% to 5% in the general population. Abnormal fusion of the mesonephric duct (mullarian duct) during embryonic life results in a variety of congenital uterine malformations like septet uterus, unicornuate uterus, and bicornuate uterus.

In the present case, the patient had a history of 7 miscarriages. She was 34 years old, married for 11 years. Due to bad obstetric history, after thorough investigations, the cause for it is diagnosed as having bicornuate uterus. It was found by hysterosalpingography.

Keywords: Developmental anomaly; Mesonephric duct (mullarian duct); Bicornuate uterus; Miscarriage

Introduction

Abnormal fusion of the mesonephric duct (mullarian duct) during embryonic life result in a variety of congenital uterine malformations [1,2]. Uterine malformations are estimated 3% to 5%. Because of better availability of diagnostic modalities i.e., trans vaginal sonography, hysterosalpingography and laparoscopy, better detection of anomalies is possible. Reproductive outcomes can be improved with better treatment.

15% to 25% of women with uterine anomalies have problems with fertility and reproduction. They have increased incidence of miscarriage, poor fetal growth, malpresentations, and abnormal placental and ectopic pregnancies.

Case Report

A 34 year old lady anxious to conceive came to the Gynecology Department, Government General Hospital Guntur. Her marital life was of 11 years. She had a history of 7 miscarriages. After 4th abortion, she underwent thorough checkup. All blood tests showed normal including thyroid profile. She was asthmatic and weighed 60 kg. She did not have any history of consanguineous marriage of parents and there were no family history of any abnormal pregnancies. Her mother antenatal period was uneventful. She was the first child to her parents.

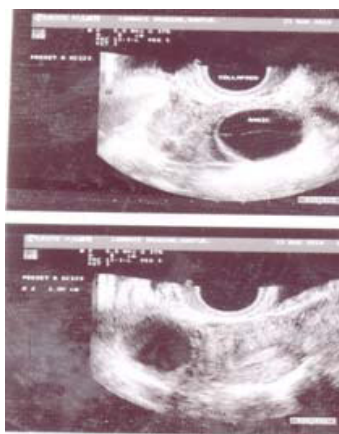


Figure 1: Ultrasonography showing two uterine cavities.



Figure 2: Hysterosalpingography showing Bicornuate uterus.

Her age at menarche was 14 years. Menstrual history was uneventful. There was no history of diabetes, hypertension, Rh incompatibility and Rubella infection.

Ultrasonography of abdomen and trans vaginal route was done. But, doctor gave the report as normal, probably due to lack of experience. After that, hysterosalpingography was done by another doctor in 2007. She was diagnosed as having bicornuate uterus. After that, she had 2 abortions at 3rd month. The 7th one was ectopic pregnancy. Finally she landed in rupture of ectopic pregnancy. For that surgery was done. Now she is willing to have a child through surrogacy. The Ultrasonography and Hysterosalpingogram findings are shown in figures 1 and 2.

Discussion

Women with uterine anomalies have poorer reproductive outcomes and lower pregnancy rates compared with women who possess normal uterus. With introduction of MRI and 2D ultrasonography, increased

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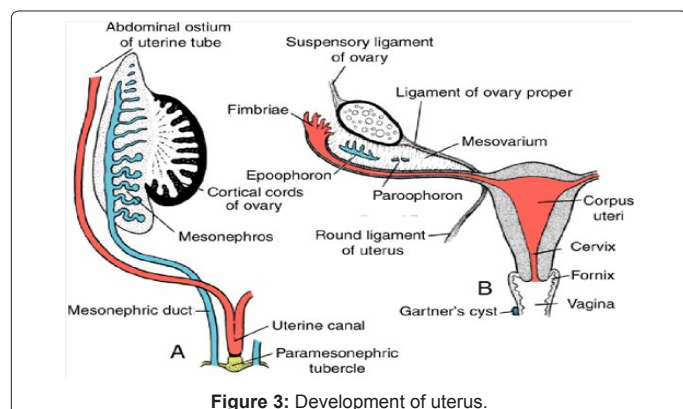


Figure 3: Development of uterus.

rate of accurate diagnosis is now possible. Obstetrical complications such as preterm delivery and 1st trimester miscarriage are higher in women with abnormal uterus.

Embryogenesis

The uterus is developed from the fused caudal vertical parts of the paramesonephric ducts, and the site of angular junction becomes the cervix dome and forms the fundus of the uterus [3,4]. The fusion between the ducts is incomplete at first, a septum persisting between the lumina. Later, the septum disappears so that a single cavity remains. The upper part of the cavity forms the lumen of the body and cervix of the uterus. The myometrium is formed from the surrounding mesenchyme (Figure 3).

Failure of the paramesonephric duct to fuse may cause a variety of uterine defects. They are

1. The uterus may be duplicated with two bodies and two cervixes.
2. There may be a complete septum through the uterus, making two uterine cavities and two cervixes.
3. There may be two separate uterine bodies with one cervix.
4. One paramesonephric duct may fail to develop, leaving one uterine tube and half of the body of the uterus.

Obstetrical impacts

More than 50% of women with malformed uterus will stay completely asymptomatic [5,6].

Obstetrics complications are infertility, early abortions, ectopic pregnancies, late abortions or premature birth, and IUGR [7-9].

Management of uterine malformations

Before pregnancy: The management of the uterine malformations before pregnancy comprises the surgical treatment if it is possible and necessary.

In the bicornuate uterus, hysteroplasty is theoretically possible in case of symptomatic malformation.

Surgical management: It is important to rule out the other causes of abortion prior to embarking on any corrective surgery for anomalies. It is also important to make the correct diagnosis, because wrong surgery can culminate in poor outcome.

Strassman uteruloplasty operation with a transverse fundal incision for reunification of the uterine cavity certainly improves the obstetric outcome in women with bicornuate uterus, who have suffered earlier pregnancy losses. In conclusion women with uterine anomalies have poorer reproductive outcomes and lower pregnancy rates with all conceptions whether spontaneous or induced with assisted reproductive techniques, compared with women with normal uteri.

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