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Case Report

SUCCESSFUL PREGNANCY OUTCOME IN A SEPTATE UTERUS: A CASE REPORT

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ABSTRACT

The septate uterus is the most common müllerian anomaly. The present paper reports a case of a successful live birth of a healthy baby at term of a mother with undiagnosed uterine septum prenatally diagnosed by USG at 20 weeks gestation. Pregnancy in septate uterus can occasionally continue upto term without complications but most cases diagnosed earlier requires surgical treatment for fertility.

KEY WORDS: Septate Uterus, Mullerian Abnormality, Transvaginal Ultrasonography, Septoplasty

INTRODUCTION

Fusion anomalies of the uterus result in variety of uterine shapes and increased incidence of miscarriages, poor fetal growth, malpresentations, abnormal placental adherence. The prevalence of mullerian anomalies in general population is 1 – 3 %[1]. Because of better availability of diagnostic modalities that is transvaginal sonography, hysterosalpingography, 3D,4D USG, MRI and hystero-laparoscopy, better detection of such anomalies is possible. Reproductive outcomes can be improved with better treatment modalities, but generally poor reproductive performance prevails. The abnormality consists of a single uterus divided by a largely fibrous midline septum[1]. Although there is some evidence of a weak genetic factor at work, researchers still do not know the exact cause of the failure of a septum to resorb[1].

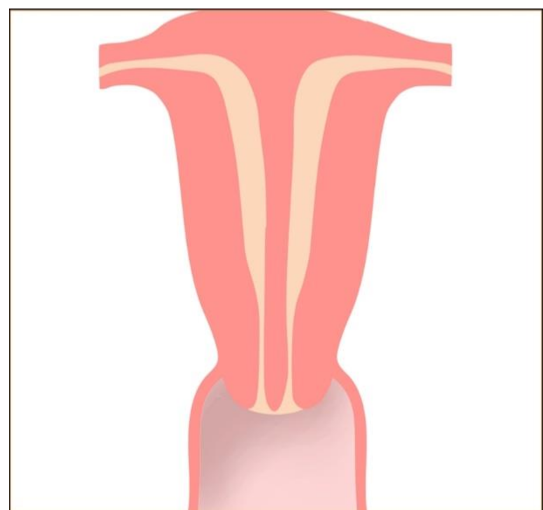

Figure 1- SEPTATE UTERUS

PRESENT CASE

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HISTORY

Mrs. MK, 22 years, primi, married for 3 years, treated for infertility by homeopath, term by LMP and early USG, antenatal investigations within normal limits showed an abnormality in USG, ultrasonographic finding being single live fetus, placenta- grade iii maturity left lateral wall, BPD- 5.19 cm, AC- 16.61 cm, FL- 3.43 cm, AGA- 21 W 2 D, EFW- 218 G with an intrauterine septum found.

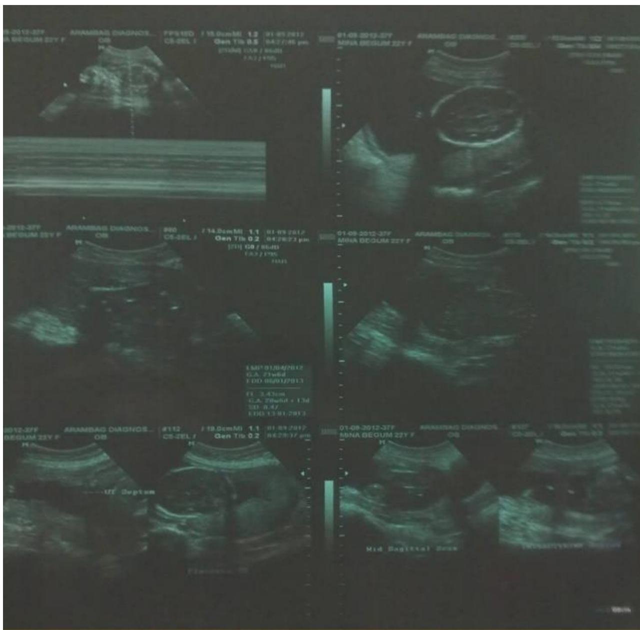


Figure 2- USG at 22 weeks gestation

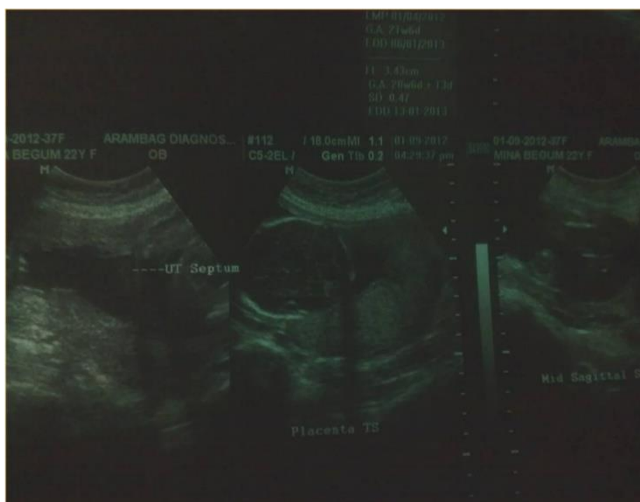
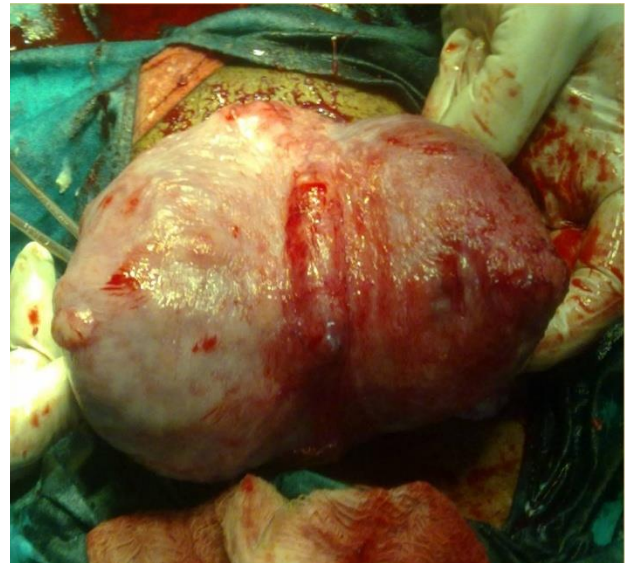


Figure 3- Intrauterine septum found.

MANAGEMENT

Pregnancy was followed up to term by monthly USGs. Elective LUCS was done. Baby was in breech presentation, placenta removed, an intrauterine septum was found extending from fundus to internal os and baby was in left compartment of the septum. A healthy 2.6 kg male baby was born.



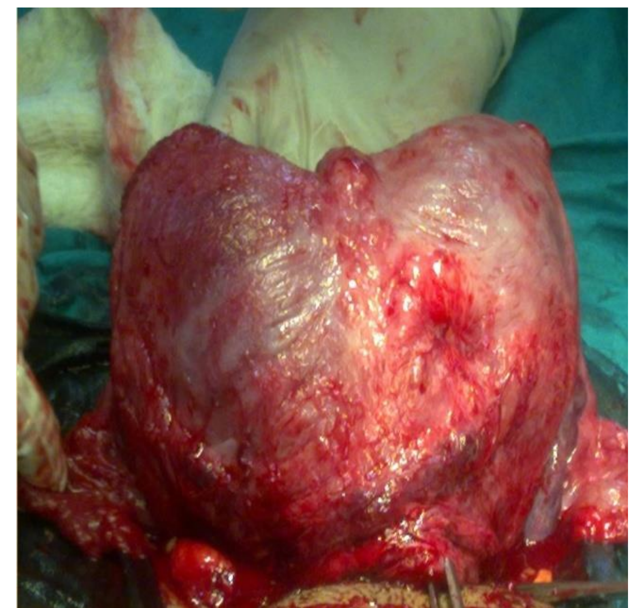


Figure 4 and 5 – Intraoperative finding of septate uterus- external surface.

DISCUSSION

This case is a rare case where pregnancy continued up to term without any complications, without prenatal diagnosis of the uterine septum and therefore without any specific management. But most pregnancies with septate uterus end up dishearteningly with miscarriages. Promising treatments of septate uterus and successful pregnancies are on rise now.

ABNORMALITY

A septate uterus is a type of congenital uterine anomaly. It is classified as a class V Mullerian duct anomaly2. It is considered the commonest uterine anomaly (accounts for up to ~ 55% of such anomalies) and is the most common anomaly associated with reproductive failure (in 67%)3. It is considered a type of uterine duplicational anomaly and results from partial or complete failure of resorption of the uterovaginal septum after fusion of the para-mesonephric ducts.

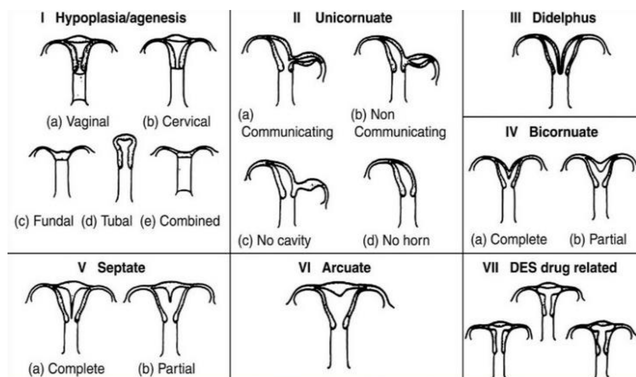


Figure 6- AFS Classification of Mullerian anomalies[4].

The septum is usually fibrous but can also have varying muscular components. The external uterine contour may be convex, flat, or mildly (< 1cm) concave3. The sub types are: complete septum extends to internal os : septate uterus, partial septum involves endometrial canal but not cervix : sub-septate uterus ,septum extends into the vagina : septate uterus and vagina5. Early miscarriage is common within the septate uterus, because the blood-starved median septum is covered by a poorer grade of endometrium than that of the blood-rich sidewalls. An embryo implanting in the septum frequently fails to thrive because of lack of nourishment, and an early miscarriage is the result. Late miscarriage is also common, where the pregnancy outgrows available space and the cervix may give way, typically midway in the pregnancy, before the fetus is mature enough to survive.

RADIOLOGICAL DIAGNOSIS

On ultrasound, the echogenic endometrial cavities are separated at the fundus by the intermediate echogenicity of the myometrium in all cases of complete septa and within the fundal part only in partial septa6.

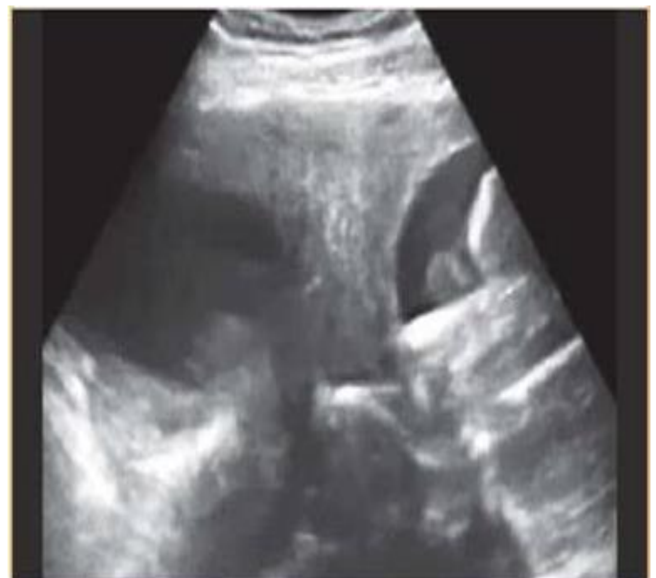


Figure 7- USG showing thick intrauterine septum.

The external uterine contour must demonstrate a convex, flat, or mildly concave (ideally no more than 1cm) configuration and may best be appreciated on transverse images of the uterus. Colour Doppler may show vascularity in the septum in 70% of cases: and if present may be associated with a higher rate of obstetric complications. Fluoroscopy – Hysterosalpingogram -accuracy of alone is only 55 % for differentiation of septate from bicornuate uteri. An angle of less than 75° between the

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uterine horns is suggestive of a septate uterus, and an angle of more than 105° is more consistent with bicornuate uteri. MRI is considered the imaging modality choice in modern radiological practice. On MR images, the septate uterus is generally normal in size and each endometrial cavity appears smaller than the configuration of a normal cavity. The septum may be composed of fibrous tissue (low T2 signal intensity), myometrium (intermediate signal) or both.

DEFINITIVE TREATMENT

The distinction between septate uterus and bicornuate uterus has important management implications. In septate uterus, but not in bicornuate uterus, the septum can be shaved off during hysteroscopy (metroplasty) to form a single uterine cavity without perforating the uterus. Reproductive outcome has been shown to improve after resection of the septum, with reported decreases in the spontaneous abortion rate from 88 to 5.9% after hysteroscopic metroplasty7. One of the heartening aspects of having a septate uterus is that it can be repaired through a relatively simple surgery, giving the woman near-normal odds of carrying a subsequent pregnancy to term. Until the mid-1980s, surgery to reduce a septum, called a metroplasty, was done through an abdominal incision. Recent development of the hysteroscopic metroplasty (also known as "septoplasty") has rendered the former technique almost obsolete8. Removal of the septum during caesarian section-to do or not to do is a question that still needs to be answered. Some authors believe that during caesarian section septum should be kept intact in view of the excess bleeding that can occur during this procedure.

CONCLUSION

This report represented a case of a live birth baby delivered from a completely septate uterus without any prior intervention. Though this is possible in a few cases(miracle), most cases of septate uterus need treatment prenatally which will successfully enhance their reproductive outcome. Better diagnostic and treatment facilities have accomplished this purpose.

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