



CASE STUDY ON PREGNANCY OUTCOME IN CONGENITAL ANOMALOUS UTERUS

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ABSTRACT

Uterine abnormalities were described in the 1800s by Cruveilhier and Von Rokitansky. Abnormal fusion of Mullerian duct in embryonic life results in variety of malformations. Incidence of congenital uterine malformations 3%-5% in which Subseptate uterus belongs to class V Mullerian duct anomaly with incidence of 2%-3% with highest reproductive failure rate. A 28 year old gravida 2, abortion 1 an unbooked case presented to OBG outpatient department with 9 months of amenorrhea. On per abdomen examination: Fundal dimpling present (uterine height is not corresponding to period of gestation). Ultrasonography shows A Single Live Intrauterine Fetus of 35 weeks gestational age growth lag of 3 weeks for AC and FL with normal doppler study. These abnormalities are often involved in reproductive difficulties such as Abortions, Malpresentations, Preterm delivery. Early diagnosis and proper antenatal care is required to manage pregnancy successfully with congenital uterine anomaly.

KEYWORDS : Antenatal Women, Mullerian Duct , Congenital Uterine Malformation, Subseptate Uterus.

INTRODUCTION

Uterus is formed by the fusion of the two paramesonephric ducts at 10 weeks of gestation followed by resorption of fused midline tissues occurring by 20th week by apoptosis. Arrest of these process at different stages may result into various Mullerian duct abnormalities. Congenital uterine abnormalities, which occur due to abnormal fusion of the Mullerian ducts during embryonic development, encompass a wide range of anatomical anomalies of the uterus and endometrial cavity. These malformations are associated with adverse pregnancy outcomes⁽¹⁾

Incidence of congenital uterine malformation among women worldwide is estimated to be 3-5%. In subseptate uterus the incidence is 2%-3% with highest reproductive failure rate. Subseptate uterus belongs to class V by American Society Of Reproductive Medicine. Subseptate uterus is caused when a resorption defect leads to a persistent complete or partial longitudinal uterine cavity septum.⁽²⁾

Subseptate uterus is the most common variant among all congenital uterine anomaly accounting for approximately 35%. Uterine septa have been known to demonstrate variable morphology, with partial or incomplete septa being very common. The presence of a septate uterus has been associated with infertility and poorer reproductive outcomes⁽³⁾

Many subseptate uteri are identified during evaluation of infertility or recurrent pregnancy loss. Initial suspicion or diagnosis of septate or subseptate uterus is typically done using Hysterosalpingography or Two-dimensional (2D) ultrasonography, three-dimensional (3D) ultrasonography, MRI and invasive methods such as hysteroscopy and laparoscopy that offer direct visualisation of the interior and the exterior of the uterus which are more advanced methods for diagnosis and classification⁽⁴⁾

This are typically required to differentiate from a bicornuate uterus. But the definitive underlying pathophysiological cause for this association still remains unclear⁽⁵⁾.

CASE REPORT

A 28 year old patient, unbooked case Gravida 2 Abortion 1 with history of 9 months of amenorrhea. She has been married for one and half year and had one spontaneous abortion at 2 months of amenorrhea. First Trimester and Second Trimester was uneventful. Patient had regular follow up earlier at Gadag.

Date of admission: 17/11/2023.

On general examination patient is moderately built and well nourished, with no pallor and no edema.

Systemic examination: CVS/CNS/RS-Normal.

Per abdomen examination on 17/11/23:

Inspection:

Fundal dimpling present as seen in Fig 1. umbilicus everted. Linea nigra and stria gravidarum noted. no evidence of dilated veins and hernial orifices intact.

Palpation:

All inspectory findings were confirmed. No local rise of temperature.

Fundal Grip :

Uterus corresponding to 30-32 weeks (uterine height is not corresponding to period of gestation); Hard, ballotable, globular mass suggestive of head.

Lateral Grip Left Side: smooth uniformly resistant curved surface suggestive of spine.

Lateral Grip Right Side: Knob like structures felt suggestive of limbs.

PELVIC Grip: smooth broad irregular mass suggestive of breech

Auscultation: FHS present (168 Bpm) on left spinoumbilical line.

NST: Non Reassuring (Fetal Distress)



Fig 1: Per Abdominal finding (Arrow showing Fundal Dimpling)

Investigations:

Haemoglobin :13.2g/dl,
 Blood Grouping and Rh Typing:O Positive,
 Platelet Count:1.75Lakhs/cumm,
 RBS:83mg/dl,
 Coagulation Profile-Normal(PT-15.1, APTT-30.2, INR-1.1) ,
 Fasting thyroid profile-normal (freeT3-2.8nmol/L, free T4-131.8nmol/L, TSH-3.42UIU/ml),
 Urine Routine: Normal,
 Serology: non reactive.(HIV,HbsAg, VDRL-NR)
 ECG-Normal sinus rhythm

Ultrasonography:

Single live intra uterine fetus of 35 weeks of gestational age.
 Growth lag of 3 weeks for AC and FL parameters.
 Placenta : Posterior Grade:III
 Amniotic fluid : 11-12cms BPP : 8/8
 APPROX WT: 2513 gms EDD:20/12/23
 FHR:134 bpm
 Presentation: cephalic
 Doppler study was normal.

MANAGEMENT

Patient was taken for emergency caesarean section after taking valid written consent on 17/11/23. (Indication: fetal distress)

Assisted Breech delivery was done; a male baby of birth weight 2.091kg on 17/11/23 at 10:36am, Baby cried immediately after birth.

Intra operatively heart shaped uterus with right horn bigger than left horn as seen in Fig 2, incomplete septa present seen in Fig 3. Placenta attached to both horns of uterus seen in Fig 4, failed to remove spontaneously so manual removal was done. Active management of third stage of labor was done. Uterus was assessed, felt flabby added Inj. oxytocin (10IU). Reassessed again felt flabby, gave Inj. Methergin 0.2mg IM and Inj. Carbetocin 100mcg IM then Misoprostol 800micrograms was kept per rectally after which uterus was well contracted and retracted.

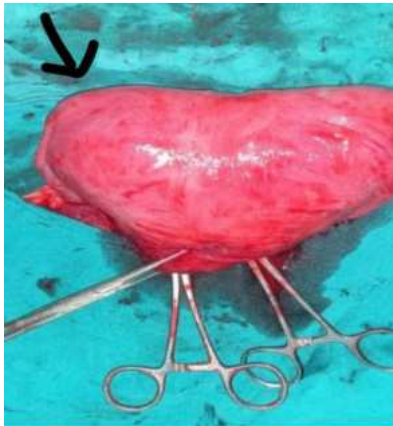


Fig 2: Fundal Dimpling (Arrow Showing Bigger Horn)



Fig 3: Incomplete Septa Noted



Fig 4: Image Of Placenta

DISCUSSION

Septum in the uterus is because of normal development of the uterus till the fusion of both the müllerian ducts but abnormal absorption of the midline septum. This class is identified by normal fundal outline and an internal indentation/notch on the fundus exceeding 50% of the myometrial wall thickness. It is important to make correct diagnosis of uterine septum versus a bicornuate uterus by HSG. An angle less than 75 degree between the uterine horns is suggestive of subseptate uterus whereas an angle of more than 105 degree is more consistent with bicornuate uterus.⁽⁶⁾

Hysteroscopic septoplasty is a favourable procedure resulting in low morbidity and improvement in pregnancy outcomes.⁽⁷⁾ Later the patient was explained about the intraoperative findings and future complications with the condition and need for follow up. But patient did not turn up for follow up.⁽⁸⁾

Metroplasty via hysteroscopic resection with or without laparoscopic guidance is the standard treatment approach, in non pregnant uterus with the primary aim of improving fertility and obstetrical outcomes to prevent complications like recurrent pregnancy loss, intrauterine growth retardation, fetal malpositions, preterm labor and retained placenta, while ensuring safe surgical outcomes as well, via direct laparoscopic guidance. However, the diagnostic and therapeutic effectiveness of this intervention has been questioned, with contradictory data and differing expert opinions. The 2016 American Society for Reproductive Medicine (ASRM) guidelines recommend septum removal, the 2018 guideline on recurrent pregnancy loss by the European Society of Human Reproduction and Embryology (ESHRE)⁽⁹⁾ does not, and the Royal College of Obstetricians and Gynaecologists (RCOG) recommends it, with the stipulation that it should be performed by experienced specialists.⁽¹⁰⁾

CONCLUSION

Congenital uterine anomaly has been well established as a cause of infertility and recurrent pregnancy loss, intrauterine growth retardation, fetal malpositions, preterm labor and retained placenta.

Women with subseptate uterus are more likely to have poor pregnancy outcome. Diagnosis of subseptate uterus gets missed on ultrasonography. The finding of subseptate uterus is not an indication for surgical intervention, but early diagnosis and proper antenatal care is required to successfully manage pregnancy with subseptate uterus.

Intraoperatively, all patients undergoing caesarean section uterus and adnexa should be explored further, interpregnancy evaluation to be done for confirmation and prevention of complications in further pregnancy.

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