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CASE REPORT

MULLERIAN DUCT ANOMALY: A CASE REPORT

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ABSTRACT: The frequency of mullerian duct anomalies vary widely owing to different patient populations, non-standardized classification systems, and differences in diagnostic data acquisition, these anomalies are clinically important, particularly in women who present with infertility. Many of the anomalies are initially diagnosed at hysterosalpingography and ultrasonography; however, further imaging is often required for definitive diagnosis and elaboration of secondary findings. At this time, magnetic resonance imaging is the study of choice because of its high accuracy and detailed elaboration of uterovaginal anatomy. Here, we report a case of 30 years old female who presented to emergency department with bad obstetric history.

KEYWORDS: Mullerian Duct Anomalies (MDAs), USG-Ultrasonography, MRI-Magnetic Resonance Imaging.

INTRODUCTION: Müllerian duct anomalies (MDAs) are congenital abnormalities that occur when the Müllerian ducts (paramesonephric ducts) do not develop correctly. This may be as a result of complete agenesis, defective vertical or lateral fusion, or resorption failure. The most basic classification of mullerian duct defects consists of agenesis and hypoplasia, defects of vertical fusion, and defects of lateral fusion. In 1979, Buttram and Gibbons(1) proposed a classification of mullerian duct anomalies that was based on the degree of failure of normal development, and they separated these anomalies into classes that demonstrate similar clinical manifestations, treatment, and prognosis for fetal salvage.

Modified in 1988 by a subcommittee of the American Fertility Society (now the American Society of Reproductive Medicine),(2) the classification remains the most widely accepted schematization and addresses uterovaginal anomalies. Class I anomalies consist of segmental agenesis and variable degrees of uterovaginal hypoplasia. Class II anomalies are unicornuate uteri that represent partial or complete unilateral hypoplasia. Class III is composed of uterus didelphys in which duplication of the uterus results from complete non-fusion of the mullerian ducts. Class IV anomalies are bicornuate uteri that demonstrate incomplete fusion of the superior segments of the uterovaginal canal. Class V anomalies are septate uteri that represent partial or complete non resorption of the uterovaginal septum. Class VI anomalies are arcuate uteri that result from near complete resorption of the septum. Class VII anomalies comprise sequelae of in utero DES exposure.

Because of the variability and overlap of features of associated cervical and vaginal malformations, these changes generally are not incorporated into the basic schematics and are reported as a subset of the primary uterine defect. Secondary classification systems also have been introduced that further dissect and elaborate on the original Buttram and Gibbons schema. To affet al(3) described nine subtypes of septate and bicornuate uteri that are characterized by the presence of a communication between two otherwise separate uterocervical cavities.

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CASE HISTORY:

- A 30 year old female patient presented in obstetrics and gynecology dept. with complaint of bad obstetric history.
- She had 2 preterm deliveries and 7 abortions.
- Menstrual history was normal.

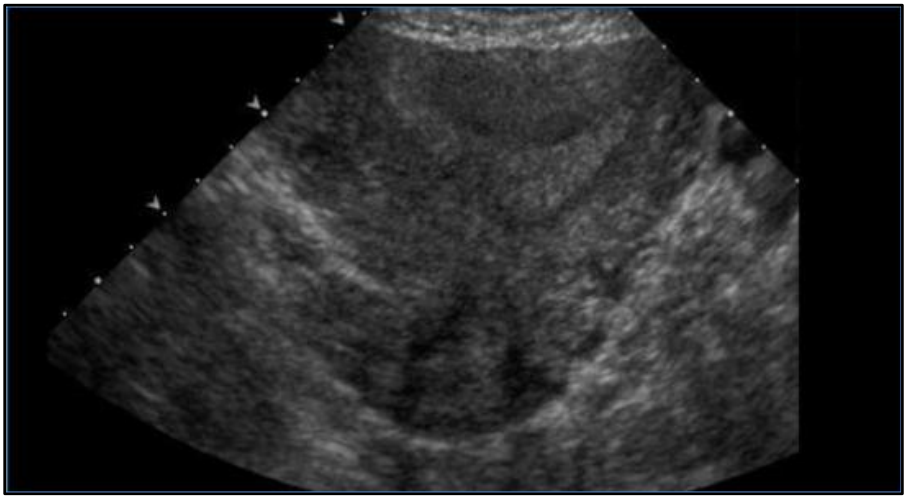
INVESTIGATIONS:

- USG findings revealed two separate echogenic endometrial cavities with intervening myometrial tissue. There was evidence of fundal indentation with bulky cervix. No abnormal adnexal mass lesion noted.
- MRI Pelvis was performed which showed evidence of two separate endometrial cavities with intervening myometrial tissue. The fundal indentation of external uterine contour between the two endometrial cavities was more than 5mm above the interostial line. There is also evidence of two separate cervices and suggestion of septum extending up till the upper vagina.

DISCUSSION AND CONCLUSION: The mullerian duct anomalies are a group of congenital anomalies of female reproductive tract. The true incidence and prevalence of mullerian duct anomalies are difficult to assess. Examination of different patient populations, non-standardized classification systems, and differences in diagnostic data acquisition have resulted in widely disparate estimates, with a reported prevalence that ranges from 0.16% to 10%.[4–12]

The patients may be completely asymptomatic as in uterus didelphys or they may result in infertility or spontaneous abortion. Septate uterus is associated with a higher rate of reproductive failure. Hysterosalpingography and USG are the primary imaging modalities but HSG cannot always differentiate between a septate and bicornuate uterus. Conventional sonography is helpful in identifying two horns of uterus but the distinction between the above two conditions cannot be made. MRI has proved to be an accurate means of diagnosis allowing precise classification.

USG IMAGES:



USG SHOWING TWO SEPRATE ENDOMETRIAL ECHOS

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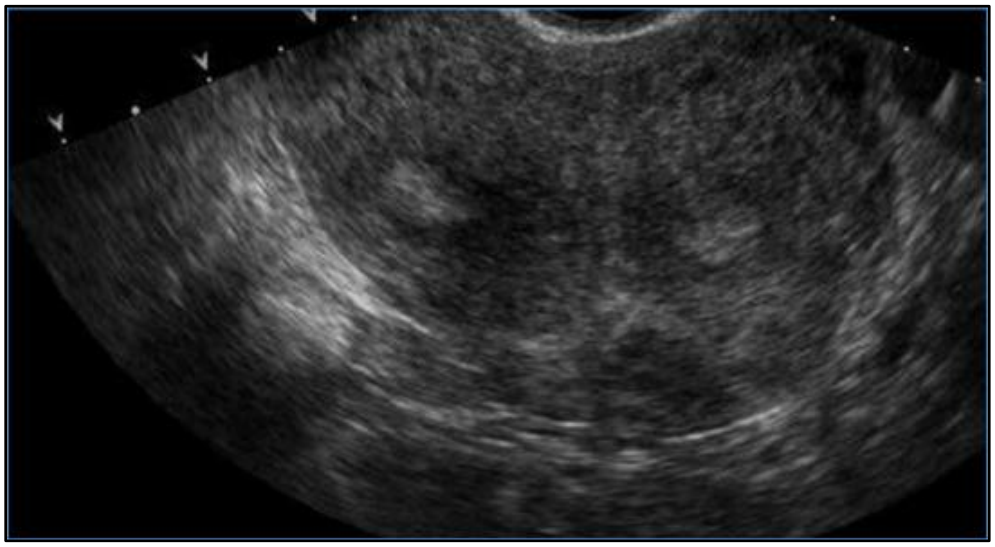
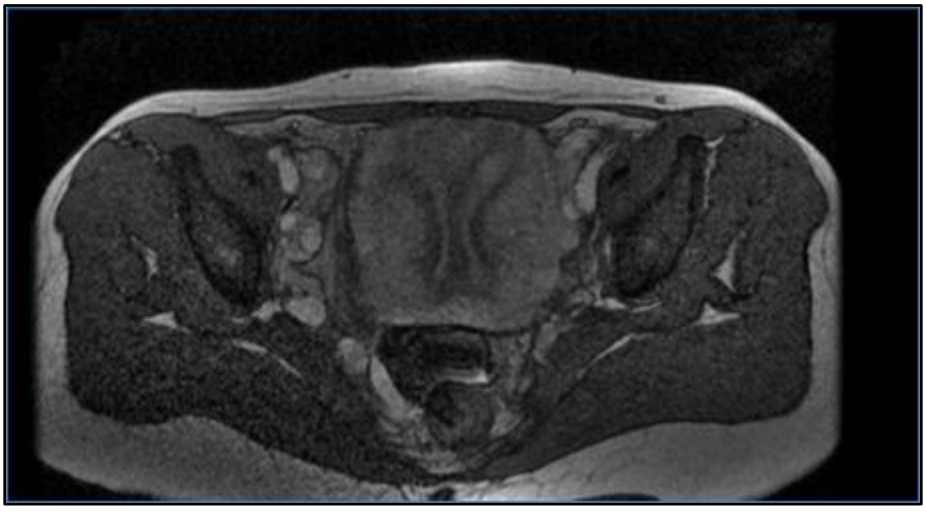


TRANSVERSE USG SCAN OF UTERUS SHOWING TWO SEPRATE ENDOMETRIAL CAVITIES

MRI PELVIS:

- MRI pelvis was performed which showed evidence of two separate endometrial cavities with intervening myometrial tissue.
- The fundal indentation of external uterine contour between the two endometrial cavities was more than 5mm above the interostial line.
- There was also evidence of two separate cervices
- Septum seen extending up till the upper vagina.



M.R.I. PELVIS T2 AXIAL IMAGE SHOWING TWO ENDOMETRIAL CAVITIES WITH MYOMETRIUM BETWEEN THEM

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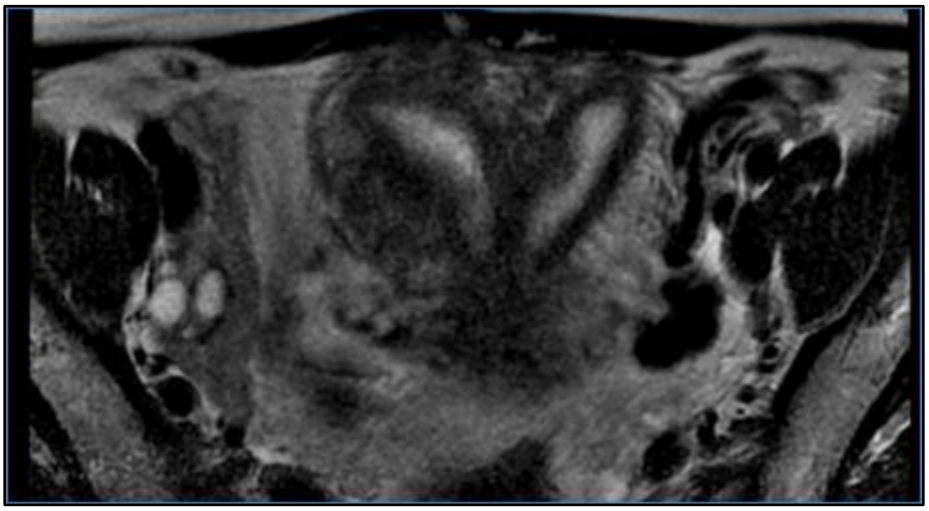
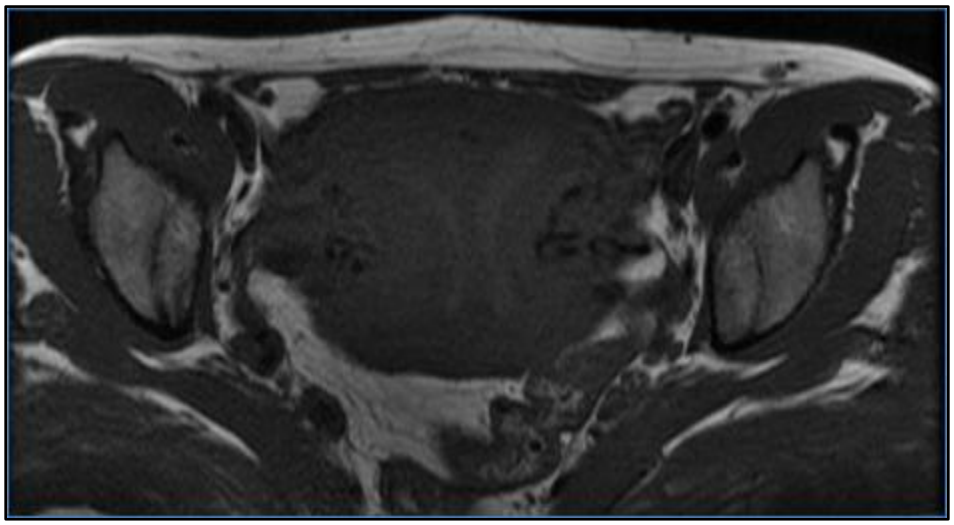


M.R.I. PELVIS T2 AXIAL IMAGE SHOWING TWO ENDOMETRIAL CAVITIES WITH MYOMETRIUM BETWEEN THEM



M.R.I. PELVIS T1 AXIAL IMAGE SHOWING TWO ENDOMETRIAL CAVITIES WITH MYOMETRIUM BETWEEN THEM

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