Beyond the Ordinary: Diagnostic and Surgical Challenges in a Rare Mullerian Anomaly

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BACKGROUND

- Mullerian anomalies are congenital malformations of the female reproductive tract resulting from abnormal development, fusion, or resorption of the Mullerian ducts (1).
- Different uterine anomalies are classified by the ASRM Mullerian Anomalies Classification 2021 (2).
- Diagnosis of uterine anomalies is best obtained through imaging. The gold standard is MRI, but other imaging modalities such as ultrasound and hysterosalpingogram can be useful.
- Management for the anomaly varies depending on diagnosis and the patient's long term goals (2).
- Differentiating mullerian anomalies can be challenging, and misclassification can affect counseling, pregnancy, surveillance, and delivery planning.

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CASE DESCRIPTION

A 30 year old G1P0 woman undergoing infertility evaluation was found on transvaginal ultrasound to have a suspected bicornuate versus arcuate uterus. Pelvic MRI demonstrated a septate uterus extending into the cervix. The patient subsequently conceived spontaneously. Maternal fetal medicine ultrasound during pregnancy suggested a bicornuate bicollis uterus with a uterine septum down to the cervix, with two cervices, and pregnancy in left horn. At 20 weeks' gestation, cervical insufficiency was diagnosed in the gravid cervix (0.75cm), while non-gravid uterus was normal (2.96cm). A McDonald cerclage was placed in the gravid cervix.

At 24 weeks, patient presented with preterm labor to 2cm of the non-gravid cervix with protruding tissue, later identified as decidualized tissue on pathology. Due to progressive and fetal heart rate abnormalities, patient delivered via a classical cesarean section at 24w4d.

Final intraoperative diagnosis was a complete uterine septum with duplicated cervices and a longitudinal vaginal septum.

FIGURES

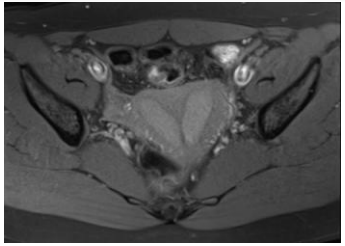

Figure 1: Pelvic MRI

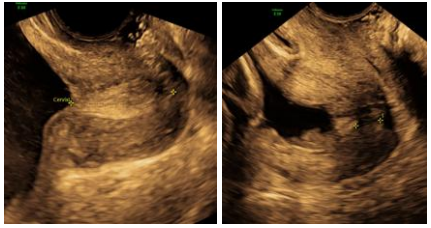

Figure 2: TVUS of right and left cervix at 20 weeks

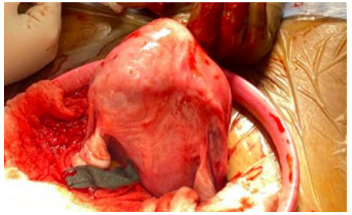

Figure 3: Intraoperative findings

DISCUSSION & CONCLUSION

- Complex Mullerian anomalies can be difficult to accurately diagnose using imaging alone, and misclassification may occur between variants. Careful correlation of imaging with physical examination and intraoperative findings is essential.
- This case highlights the rare presentation of a complete septate uterus with duplicated cervices and longitudinal vaginal septum, as well as its potential association with preterm delivery. Accurate diagnosis is important for counseling, pregnancy management, and future reproductive planning.

REFERENCES

1. Sadler TW. *Langman's Medical Embryology*. 15th ed. Philadelphia, PA: Wolters Kluwer; 2023.
2. Pfeifer SM, Attaran M, Goldstein J, et al; Practice Committee of the American Society for Reproductive Medicine. *ASRM Müllerian Anomalies Classification 2021*. Fertility and Sterility. 2021;116(5):1238-1252. doi:10.1016/j.fertnstert.2021.09.025.