Case Report: Uterine Didelphys in Two of Three Triplets, Discovered during IUD Placement

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Objectives

- Present a rare case of uterine didelphys in two of three female triplets
- Highlight heritable contributions to Mullerian anomalies
- Discuss clinical implications for pre-IUD evaluation
- Highlight the consideration of imaging prior to IUD placement in high-risk patients

Introduction

- Uterine didelphys is a congenital Mullerian anomaly involving:
  - complete duplication of uterus, cervix and upper vagina[1] (Figure 1 and 2).
  - often associated with longitudinal vaginal septum
- Familial aggregation has been reported:
  - Approx 10% of Mullerian anomalies are linked to genetic factors[2]
  - First-degree relatives, especially siblings, are at the highest risk
  - Current standard IUD practice relied on bimanual and speculum exam with routine pelvic imaging not recommended prior to an IUD insertion[3]

Case Description

An 18-year-old female presented for IUD placement under general anesthesia. Prior medical history included ADHD well managed with medications and POTS. She reported irregular menstrual cycles with heavy bleeding, though her primary reason for seeking an IUD was contraception. The procedure was scheduled under general anesthesia due to significant procedural anxiety.

A bimanual examination revealed a vaginal septum. Further exploration identified a complete longitudinal vaginal septum dividing two distinct vaginal openings, and speculum examination confirmed two cervixes. Somatic dysfunction between T9–L2 due to the sympathetic VSR reflex to the uterus, as well as sacral dysfunctions, was suspected[5]. IUD placement was discontinued due to suspected Mullerian anomaly.

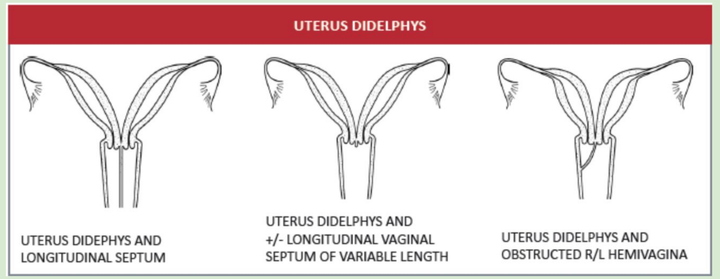
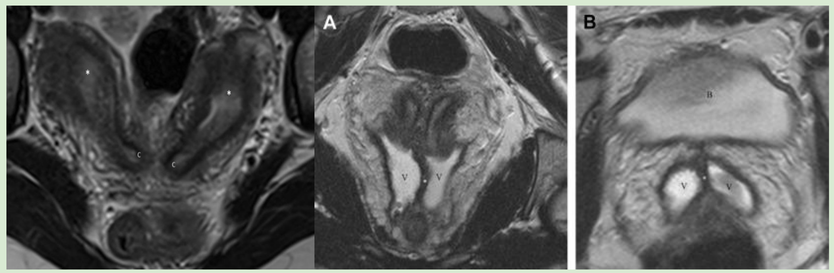


Figure 1: Anatomy of Uterine Didelphys[4]



Left: Two widely divergent uterine horns (asterisk) and two separate cervices. Middle: Two distinct vaginas divided by a prominent longitudinal septum (asterisk). Right: Two separate vaginal lumens (V) separated by a septum (asterisk); urinary bladder (B)

Figure 2: Imaging of Uterine Didelphys

Case Description Continued

Coincidentally, another triplet was scheduled for the same procedure. Examination revealed a complete longitudinal vaginal septum and two cervixes. Both patients were referred for follow-up imaging due to high incidence of co-occurring renal tract anomalies. After a complete workup, no other genitourinary anomalies were discovered. IUD placement was deferred, and both patients were counseled on alternative contraception.

Discussion

This case is notable for a rare congenital Mullerian duct anomaly in two of three triplets. Studies have shown that first-degree relatives, especially siblings, have the highest association of heritability[2]. This case highlights whether the prenatal environment plays a role in development. The discovery during IUD placement underscores the complexity of diagnosing Mullerian anomalies. Many patients remain undiagnosed due to being asymptomatic. Current ACOG guidelines do not require or recommend pelvic imaging prior to IUD insertion. This case illustrates how patients who decline pelvic examinations can have Mullerian duct anomalies that easily go undiagnosed.

Conclusions

Uterine didelphys is a rare congenital Mullerian anomaly that often remains undiagnosed until early adulthood. Two of three triplets with incidental discovery highlights the limited research on genetic contributions to Mullerian anomalies and the conversation around IUD insertion practice guidelines. Current guidelines do not recommend routine pelvic imaging, but this case illustrates potential complications in nulliparous patients or those declining a pelvic exam. Further research is warranted to better define genetic contributions and establish more comprehensive evidence-based guidelines for pre-procedural evaluation in high-risk populations.

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