Complete Uterine Septum: Surgical Resection Challenges in a Patient with Infertility

Grace Thayer, BS; Mariam Barseghyan, MD, MS; Leah Ginn DO, MS; Larisa Gavrilova-Jordan, MD[1]

[1]Department of Obstetrics and Gynecology, Division of Reproductive Endocrinology, Infertility and Genetics, Medical College of Georgia at Augusta University

SAAOG
Annual Meeting • 2026
JANUARY 24 - 26, 2026

Disclosures

- I have no financial or other disclosures

Learning Objectives

- Recognize the reproductive risks associated with a complete uterine septum
- Describe operative challenges posed by cervical laxity
- Identify optimization strategies for staged septum resection
- Apply pearls for postoperative adhesion prevention

Background

- A uterine septum is the most common Müllerian anomaly
- A complete septum results from a post-fusion recanalization failure of the müllerian ducts
- Reproductive risks:[1, 2]
  - Recurrent pregnancy loss
  - Subfertility
  - Preterm labor
  - Malpresentation
- Hysteroscopic resection can improve reproductive outcomes[2,3]

Case Introduction

- **Patient:** 32-year-old, G1P0010
  - 6-years of secondary infertility
  - History of spontaneous abortion at 14 weeks, managed with dilation and curettage
  - Saline infusion sonogram showed müllerian anomaly
  - Pelvic MRI confirms complete uterine septum with extension to the level of the internal cervical os. Renal anatomy with no abnormalities.

Pelvic MRI

Pelvic MRI image shows complete uterine septum extending to internal cervical os with normal vaginal canal

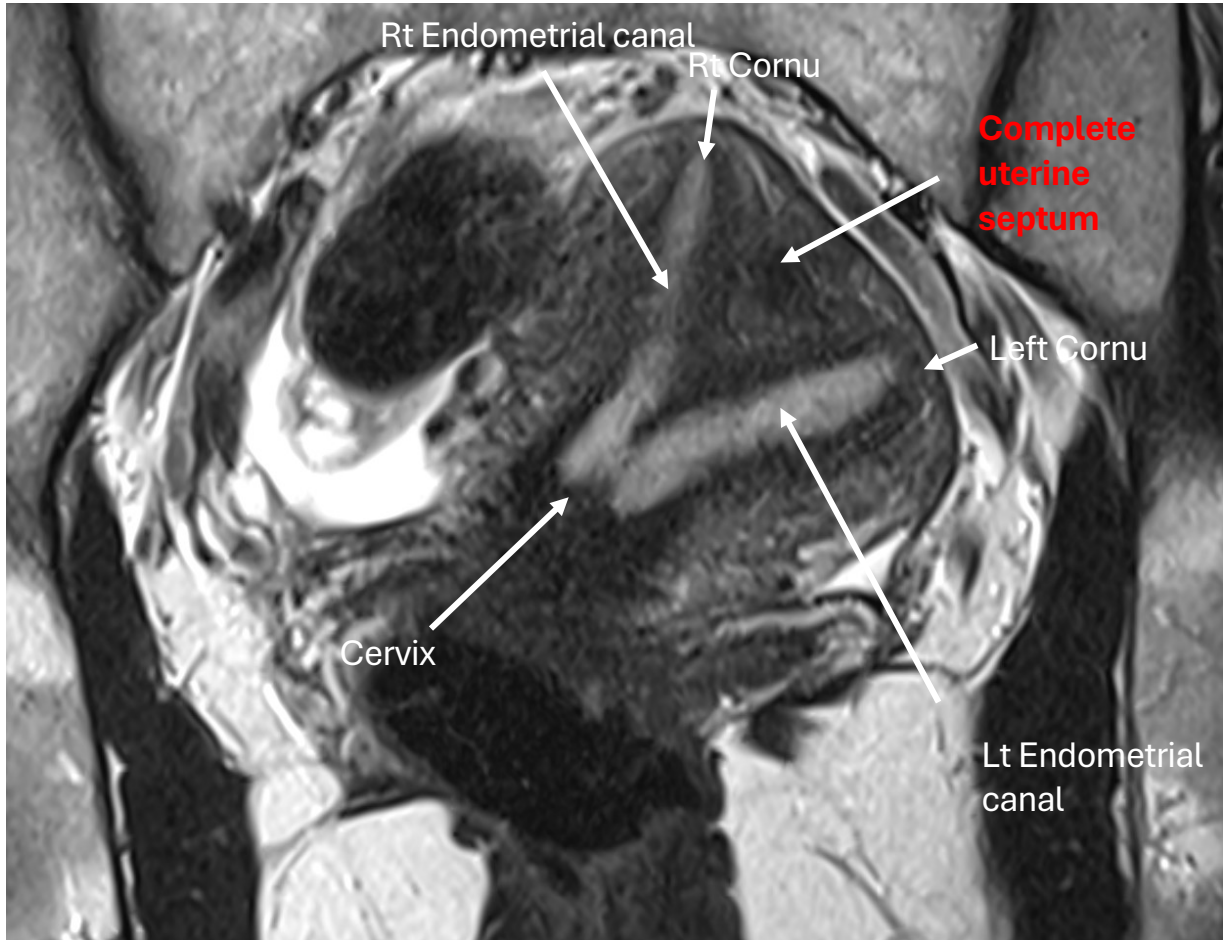


Figure 1. Pelvic magnetic resonance imaging (MRI), T2-weighted coronal view.

Hysteroscopic Resection: Stage 1

- Cervical laxity contributed to limited uterine cavity distension, with some improvement after adding a second tenaculum and ring forceps to improve the cervical seal

- Successfully resected 2 cm of uterine septum, due to continued limited visualization and insufficient seal procedure was stopped

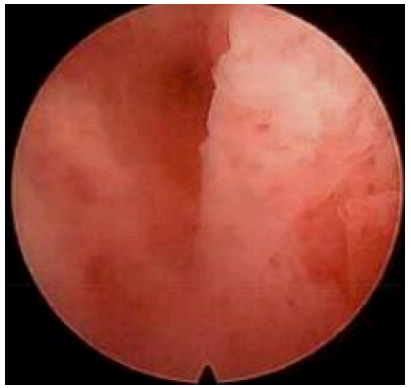
Interval Management

- 2-month recovery interval
- Plan for second stage hysteroscopic resection:
  - Symphion™ Tissue Removal System
  - Fluid management system
  - Concurrent laparoscopy for transilluminating fundal area to prevent uterine perforation

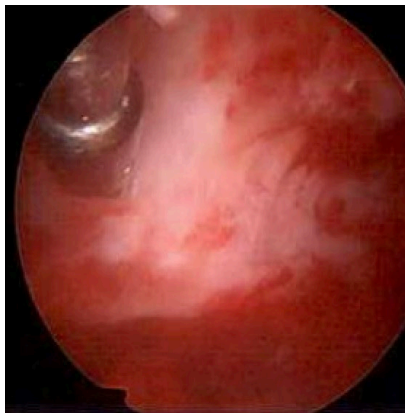
Hysteroscopic Resection: Stage 2

- Hysteroscope compatible with Symphion™ Tissue Removal System
- Improved cervical seal allowed consistent visualization
- Residual septum resected under hysteroscopic and laparoscopic transillumination to ensure no perforation

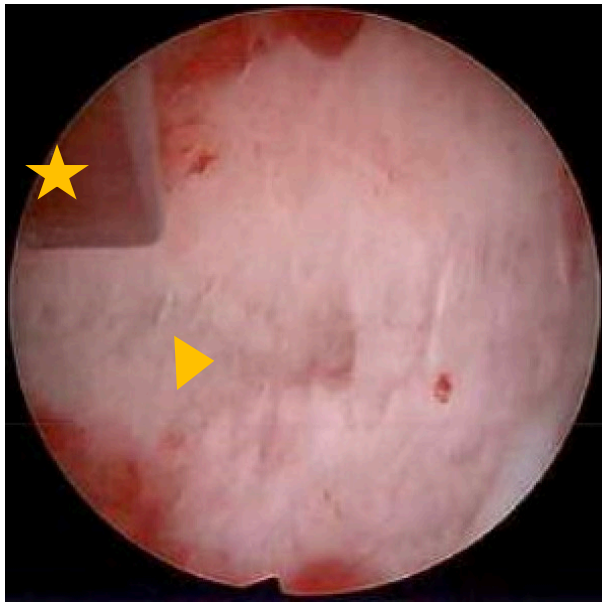
2.



3.



4.



Legend:
★ Hysteroscopic scissors
▶ Fibrotic tissue of a septum

Figure 2-4: Hysteroscopic view of uterine septum

Hysteroscopic Resection: Stage 2

- Laparoscopy:
  - Minimal peritoneal endometriosis
  - Chromopertubation revealed bilateral tubal patency
- Hysteroscopy: Several sub-centimeter polyps in lower uterine segment and cervix
  - Excised with tissue removal device
  - Benign pathology

5.

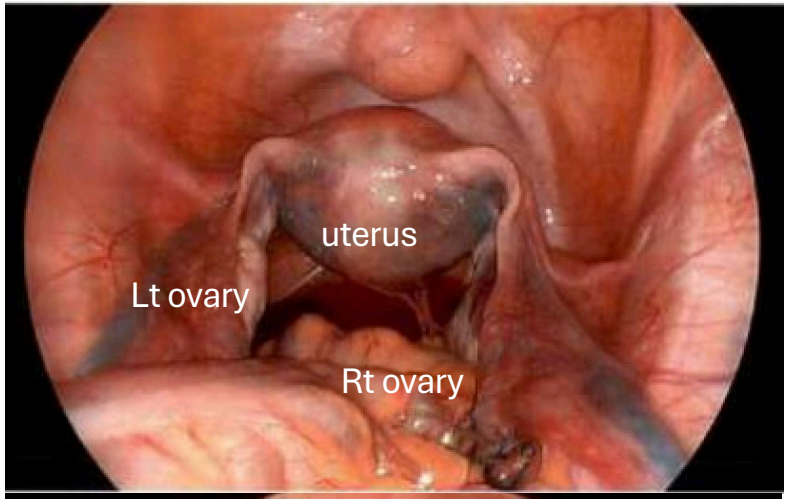


Figure 5: Laparoscopic view showing bilateral tubal spill of methylene blue

6.

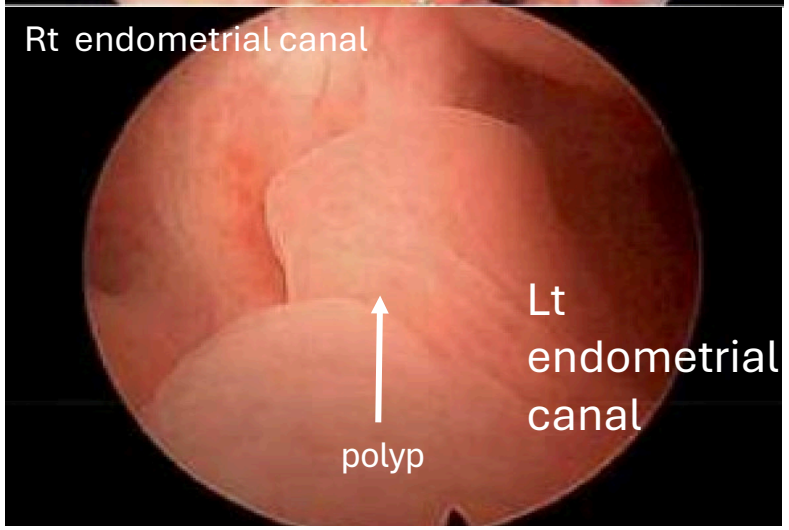


Figure 6: Hysteroscopic view showing polyps in lower uterine segment

Post-operative Management

- Intrauterine balloon × 5 days
- Doxycycline prophylaxis until intrauterine ballon removed
- Estradiol patch 0.1 mg twice weekly × 3 weeks
  - Rationale: prevent adhesions and optimize proliferation of the endometrium
- Progesterone 200 mg PO daily to induce withdrawal bleed after completion of estradiol
- SIS at 3 month follow-up

Discussion: Key Challenges in this Case

- Hysteroscopy
  - Step 1
    - Insufficient cervical seal contributed to loss of distension media, preventing adequate visualization
    - Need for adjunctive technology with pressure fluid management system as well as wider diameter hysteroscope
    - Polyps at second surgery required excision
    - Wide base of septum at fundus required transillumination to avoid perforation
- Resection of residual septum required careful second stage operation

Surgical Optimization Pearls

Preoperative:

- Identify cervical laxity on exam/SIS
- Counsel patient on possible staged procedure

Intraoperative:

- Consider early use of tissue removal device
- Use fluid management system
- Incorporate concurrent laparoscopy to monitor hysteroscopic septoplasty to prevent uterine perforation

Postoperative:

- Balloon catheter
- Estrogen post-operatively

Clinical Relevance

- Complete septum resection may improve reproductive outcomes in women with a history of miscarriage and infertility

- ASRM 2024 Guidelines: insufficient evidence that resection increases live birth rate, therefore shared decision-making is recommended[3]

- Complete septum resection may be offered for recurrent miscarriage and could reduce adverse obstetric outcomes (e.g., malpresentation, cesarean). High-quality data are limited[3]

Conclusion

- Complete uterine septum poses significant reproductive risks
- Cervical laxity complicates hysteroscopic surgery
- Strategic surgical planning (staged approach and adjuncts) improves safety and outcomes
- Successful complete resection with optimized postoperative care

References

1. Noventa M, Spagnol G, Marchetti M, Saccardi C, Bonaldo G, Laganà AS, et al. Uterine Septum with or without Hysteroscopic Metroplasty: Impact on Fertility and Obstetrical Outcomes-A Systematic Review and Meta-Analysis of Observational Research. J Clin Med. 2022 Jun 8;11(12):3290.

2. Tang J, Jiang L, Zhang J, Xiao S, Li X, Zhou J. Effect of hysteroscopic uterine septum resection on pregnancy outcomes. J Gynecol Obstet Hum Reprod. 2022;51(2):102275.

3. Evidence-based diagnosis and treatment for uterine septum: a guideline. Fertility and Sterility, Volume 122, Issue 2, 251 - 265

Discussion

- Thank you!
- Questions & Discussion