

Transrectal Imaging for Evaluation of Posterior Placenta Accreta Spectrum: A Case Report

Caitlin E. Messiah, MD¹; Jordan A. McKinney, MD, MBA¹; Kam Szlachetka¹; Stavros Diavolitsis, MD¹; Mehmet R. Genc, MD, PhD¹
 Division of Maternal-Fetal Medicine, Department of Obstetrics and Gynecology, University of Florida College of Medicine, Gainesville, Florida



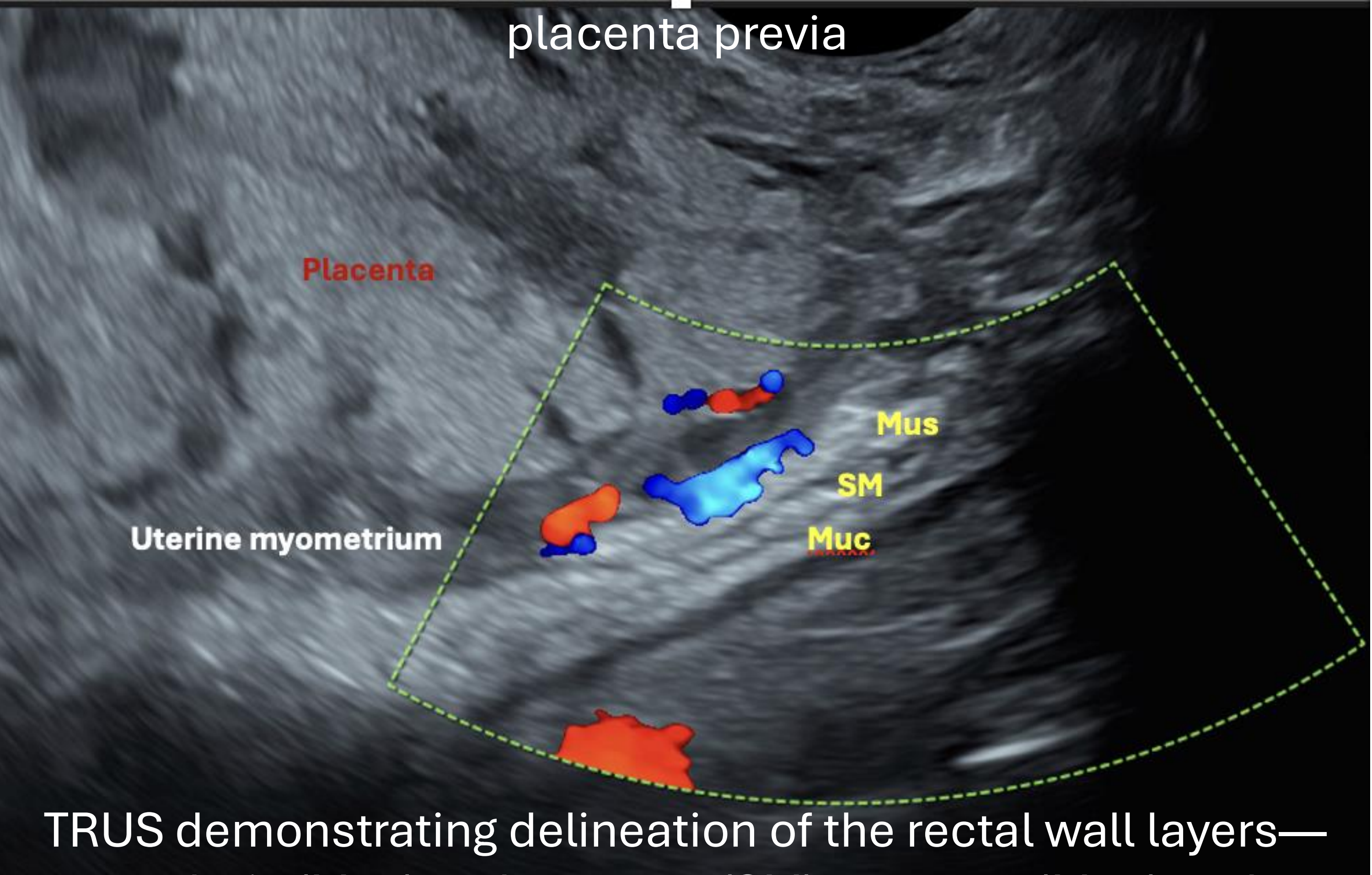
Background

- Posterior placenta accreta spectrum (PAS) presents a unique diagnostic challenge.
- Transabdominal and transvaginal ultrasound may inadequately visualize the posterior lower uterine segment, cervix, and adjacent structures.
- MRI is frequently used as an adjunct but may be limited by availability and cost.
- Transrectal ultrasound (TRUS) provides an alternative acoustic window that may improve visualization of the posterior cervix and rectouterine interface.

Case Presentation

A 34-year-old G4P1112 at 29 weeks with posterior placenta previa was referred for evaluation of suspected PAS. Her history was notable for two prior cesarean deliveries, a prior adherent placenta, three D&Cs, and conception by IVF. TVUS demonstrated a posterior placenta with placental lacunae, loss of the retroplacental clear zone, focal myometrial thinning, and prominent subplacental vascularity. Although these findings were concerning for PAS, the posterior cervix and rectouterine interface were incompletely visualized on TVUS, limiting assessment for extrauterine extension. Given this limitation, TRUS was performed to better delineate the posterior cervix, rectouterine interface, and rectal wall

Imaging Comparison



Key Findings

Modality	Key Findings	Assessment
TVUS	Posterior complete previa with multiple PAS makers; rectouterine interface poorly visualized	Indeterminate
MRI	Posterior percreta extending to and abutting the rectum/sigmoid colon	Concern for possible rectal/sigmoid invasion
TRUS	Rectal wall layers and rectouterine interface clearly delineated ; no loss of myometrium or chaotic vascularity	No evidence of rectal involvement
Intraoperative	No placental extension into the parametria or posteriorly toward the rectum	No gross rectal involvement
Pathology	FIGO grade 3A PAS; >75% myometrial invasion with focal serosal disruption	Confirmed advanced PAS

Conclusion

- Transrectal ultrasound may provide a valuable complementary imaging approach for posterior PAS.
- In this case, TRUS:
 - ✓ Improved visualization of the posterior cervix and rectouterine interface compared to TVUS
 - ✓ Clearly delineated individual rectal wall layers
 - ✓ Did not demonstrate findings suggestive of rectal involvement
 - ✓ Provided findings that were superior to the MRI and consistent with final pathology
- TRUS may be particularly useful when the rectouterine interface is inadequately visualized using conventional ultrasound