

Poster number (EP13.28). Systematic Transvaginal Ultrasound Evaluation of Bladder Endometriosis Using the IDEA Approach.

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Objective

To describe and summarize the transvaginal ultrasound (TVS) features of bladder endometriosis (BE) using a systematic approach and to explore their associations with clinical presentation and intraoperative findings.

Methods

The study retrospectively included patients with BE detected by TVS at the Third Affiliated Hospital of Sun Yat-sen University between June 2023 and August 2025. Histopathology or MRI served as the reference standard. All patients underwent systematic TVS following the International Deep Endometriosis Analysis (IDEA) approach. Ultrasound assessment included lesion location, morphology, depth of invasion, anterior compartment obliteration, and vascularity. Clinical data were also collected.

Results

Ten patients were included. Urinary symptoms were present in 5/10 patients, while the remaining patients had non-specific or no urinary complaints. Three patients had a history of cesarean section, with lesions associated with the surgical scar. All lesions were located at the bladder base, with irregular, lobulated morphology and well-defined margins. All involved the submucosal layer without mucosal infiltration. The uterovesical sliding sign was negative in 9/10 cases. Minimal to moderate vascularity (color Doppler scores 2–3) was observed in 9/10 lesions. Coexisting pelvic deep endometriosis or adhesions were present in most patients.

Conclusion

BE shows identifiable ultrasound features. A systematic TVS approach, particularly assessment of the anterior compartment and sliding sign, may improve detection and preoperative evaluation.

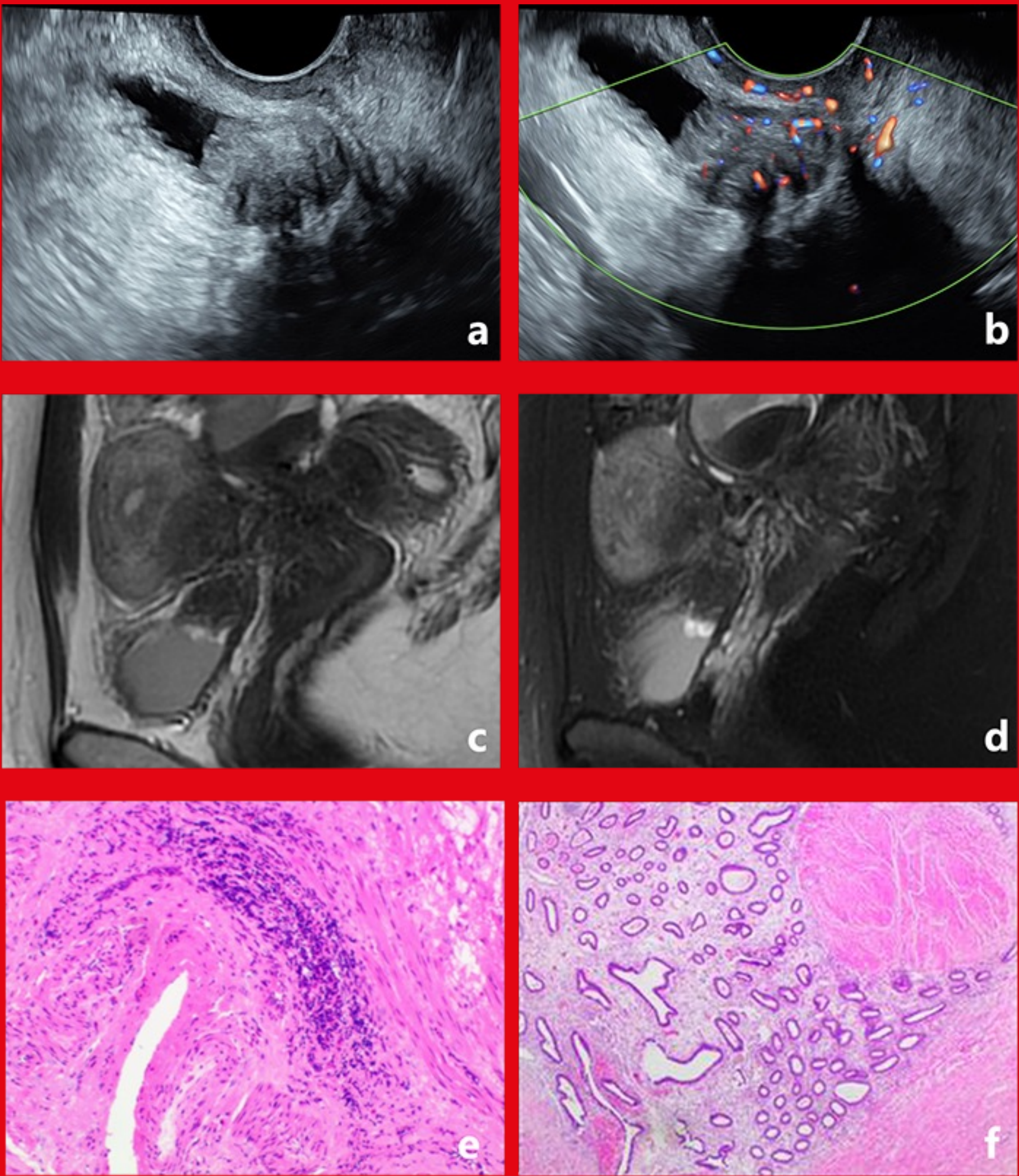


Figure 1. All patients with histologically or MRI-confirmed BE were assessed. a Transvaginal ultrasound images of BE nodules. b Color Doppler imaging showing blood flow within the BE nodules. c T1-weighted MRI image of the BE lesion. d T2-weighted fat-suppressed MRI image of the BE lesion. e, f Histopathological sections showing multifocal endometrioid glands and stroma within proliferative smooth muscle tissue.