

DIAGNOSIS OF URETHRAL DIVERTICULA IN WOMEN: VALUE OF PERINEAL ULTRASOUND IMAGING

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Introduction & Objectives: The purpose of this study was to determine the role of perineal ultrasound imaging in the diagnosis of urethral diverticula in women.

Material & Methods: In 42 patients (mean age, 51 years), perineal ultrasound imaging was performed. Perineal ultrasound (3.5-5.0 Mhz) and introitus ultrasound (12Mhz) imaging findings were compared with findings on urethrograms (including voiding cystourethrograms or double balloon catheter studies) in 21 patients, CT findings in 17 patients, MRI findings in 14 patients, urethroscopic findings and surgical findings in all cases. US images were assessed for the presence, size, number, and location (anterior or posterior to the urethral lumen and relationship to the neck of the bladder) of diverticula, vascularization of diverticula, visualization of ostia, and presence of any concomitant complications. 28 of 39 patients had multiseptate urethral diverticula: uncomplicated (simple) urethral diverticula in 11 patients. In the remaining 3 patients, the diagnoses included Gartner's duct cyst (2) and paraurethral cyst (1).

Results: In all patients who had surgery, US images correctly showed the presence or absence of diverticula, whereas urethrography was correct in 11 (26%) and urethroscopy in 24(57%). Compared with surgical findings, US images depicted 42 (100%) of 42 diverticula and urethrography and urethroscopy each depicted 24 (57%) of 42. The ostium of the diverticulum could be identified on US images in 3 cases. The use of power mode ultrasound was superior in showing granulation tissue.

Conclusions: Perineal ultrasound imaging is accurate for showing urethral diverticula very simple with low cost. MRI or CT achieves not more information for showing urethral diverticula, but owing to its high cost. The study shows that perineal ultrasound might achieve better results due to urethroscopic or urethrographic findings. The recommended diagnostic for urethral diverticula is the perineal ultrasound.