

# **Application of ultrasonography in female voiding dysfunction**

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摘要

## **Abstract**

Managing female voiding dysfunction is a challenge in clinical work. Moreover, the symptoms are non-specific and can be caused by a variety of disorders. A thorough evaluation, including physical examination, imaging studies, and urodynamic investigation of the lower urinary tract, is crucial for appropriate management. Ultrasonography has the advantages of being non-invasive, reproducible, without radiation exposure, and low cost. With the use of a high-resolution transducer, pelvic organs can be demonstrated clearly on ultrasonography. In addition, three-dimensional ultrasonography provides a clear demonstration of the spatial orientation of the female lower urinary tract. Both color and power Doppler scanning can not only reveal the vascular flow in pelvic organs, but also demonstrate urinary flow. Ultrasonography may help physicians explore the anatomic characteristics and pathophysiological mechanism of female outlet obstruction. In addition, it may assist in the surgical management of female voiding dysfunction with minimal invasion.