

CLINICAL AND URODYNAMIC EVALUATION OF WOMEN REFERRED WITH DIABETES MELLITUS

Hypothesis / aims of study

To investigate the impact of diabetes mellitus on female lower urinary tract dysfunction.

Study design, materials and methods

Totally 1,640 consecutive diabetic women were prospectively collected from the inpatient departments and outpatient clinics of urology, endocrinology, geriatrics, and nephrology in primary, secondary, and tertiary referral hospitals, rural healthcare stations, and nursing homes in Dujiangyan, China. Clinical histories were taken on an individualized basis depending on patient presentation. Urodynamics were performed in the enrolled female diabetic patients after excluding other causes of lower urinary tract dysfunction. Data on lower urinary tract symptoms and urodynamic parameters were analyzed.

Results

Ninety-three percent of diabetic women complained of lower urinary tract symptoms, and 88% had positive urodynamic findings. On the whole, 95% diabetic women had diabetic cystopathy.

Interpretation of results

Sixty-three percent presented with storage symptoms, 918 cases of which had detrusor overactivity, 787 impaired detrusor contractility, and 131 detrusor areflexia. Among the 918 patients with impaired detrusor contractility or detrusor areflexia, the mean first sensation of filling was 238.1 ml, with a mean maximum cystometric capacity of 624 ml, mean maximum flow rate of 9.6 ml/s, mean detrusor pressure at maximum flow rate of 32.4 cmH₂O, and mean postvoid residual of 323 ml. Thirty-eight of 131 patients with detrusor areflexia had impaired renal function on blood chemistry test, and massive bilateral ureterohydronephrosis and "Christmas-tree-shaped" bladder in videourodynamic studies.

Concluding message

Diabetes mellitus alters voiding patterns significantly, causing various lower urinary tract symptoms in a significant proportion of diabetic women. Diabetic cystopathy is a progressive condition with a spectrum of clinical symptoms and urodynamic findings. The prevalence of diabetic cystopathy is very high in Dujiangyan, China.

References

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Disclosures

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