

## Holmium laser treatment of a vesical calculus secondary to TVT procedure

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**Abstract** A case of vesical calculus is being presented as a complication of TVT procedure done for severe stress incontinence in an elderly lady. The patient, who presented with obstructive and irritative lower urinary tract symptoms, needed an indwelling catheter. Non-enhanced CT scan of abdomen confirmed an intraluminal calcific density in the anterior wall of urinary bladder just left of midline. On cystoscopy, a blue-colored polypropylene mesh of the TVT was visible at the ends of this calculus, holding it to the anterior vesical wall. Holmium laser was used to disintegrate the ends of the mesh deep in the submucosa of the urinary bladder. To our knowledge, this is a unique case of calculus forming near the dome of bladder over a TVT mesh presenting 3 years post-operatively and treated with holmium laser.

**Keywords** Bladder perforation · Holmium laser · TVT · Vesical calculus

### Abbreviations

TVT tension free vaginal tape  
CT computerized tomography

### Case Report

A 58-year-old lady was referred for fever and persistent urinary symptoms in the form of dysuria, frequency, urgency, and sensation of retention of urine to our department. On examination, she had bladder percussable up to two fingers above the pubic symphysis. Upon catheterization, 200 ml of urine was recovered.

She had undergone TVT procedure for severe stress urinary incontinence 3 years ago, elsewhere. On questioning, she revealed that in the immediate post-operative period, she had severe pain in the suprapubic region and had required injectable antibiotics and analgesics for a week. After she was discharged from the hospital, she had some improvement in her stress urinary symptoms but urination had become painful. She was prescribed oral antimicrobials off and on for her symptoms, which were diagnosed as urinary tract infection.

Upon investigation at our department, she was found to have leucocytosis, microscopic pyuria, and bacteriuria. Microbial culture of her urine revealed a heavy growth of *E. coli*. Ultrasonogram of the urinary tract revealed a vesical calculus 2.5 cm × 3.0 cm. Non-enhanced computerized tomography (CT) scan of abdomen confirmed an intraluminal calcific density in the anterior wall of urinary bladder just left of midline (Fig. 1). Under suitable antibiotic cover, as per the urine culture sensitivity, she underwent cystoscopy under spinal anesthesia, which confirmed the presence of what initially looked like a vesical calculus adherent to the anterior wall of urinary bladder. On close inspection, a blue-colored polypropylene mesh of the TVT was visible at the two lateral ends of this calculus, holding it to the anterior wall of urinary bladder

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