Transurethral seminal vesiculoscopy with a ureteroscope for the treatment of seminal vesicle stones

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Introduction

Stones in seminal vesicles are extremely rare, Hemospermia, infertility, perineal/testicular pains and painful ejaculation are common primary symptoms. Seminal vesicle stones are one of the main cause of persistent or intractable hemospermia. The purpose of this study was to apply a transurethral seminal vesiculoscopy for diagnosis and treatment of the seminal vesicle stones with a ureteroscope.

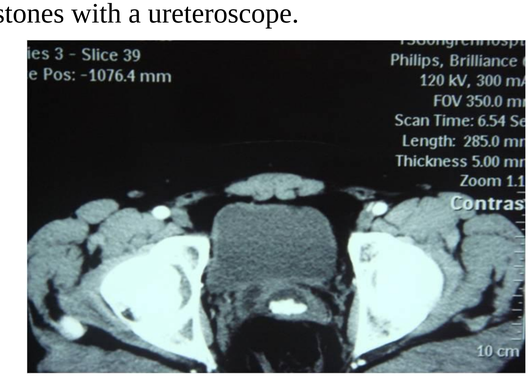


Fig1. Seminal vesicle stones in CT

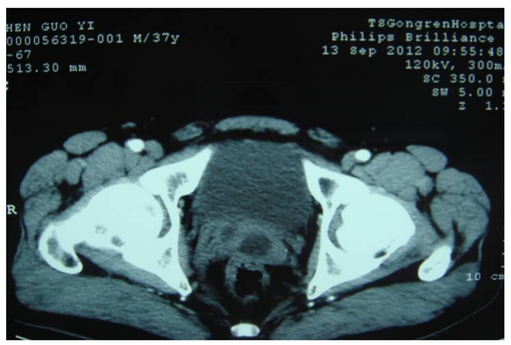


Fig2. One month after lithotripsy.

Methods

Totally 76 patients with intractable hemospermia underwent transurethral seminal vesiculoscopy through the distal seminal tracts using a 7.3F rigid ureteroscope. Age of patients was from 23 to 58 years, the average was 42 years old. The patients' symptoms ranged in duration from 3 to 180 months(mean duration 45.8 months). All patients underwent either transrectal ultrasonography, pelvic computed tomography or magnetic resonance imaging before operation. Positive imaging findings were observed in patients with seminal vesicle stones and dilated seminal vesicle size.

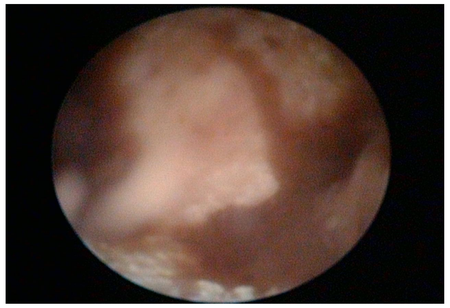


Fig3. Seminal vesicle bleeding under ureteroscope

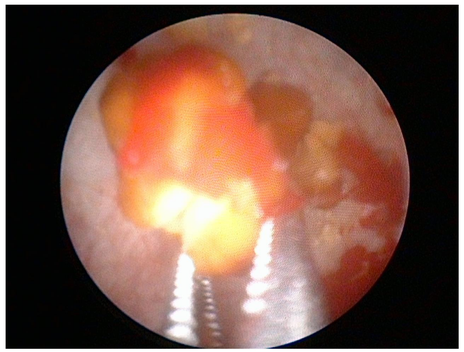
Fig4. Seminal vesicle stones under ureteroscope

Results

All 76 patients were successfully performed transurethral seminal vesiculoscopy. A 7.3F rigid ureteroscope was inserted retrograde through the orifice of the verumontanum guided by a 0.032-inch Zebra guidewire. After entering the lumen of the verumontanum, the bilateral ejaculatory duct orifices were identified under low pressure saline irrigation. The seminal vesicle interior with single or multiple yellowish stones ranging from 1 to 8 mm in diameter was clearly visible. Almost of the stones were easily fragmented and endoscopically removed using a grasper. but if the stone is large and hard, it can be fragmented by holmium laser lithotripsy, and then removed by a grasper. The residual fragments were then by irrigation basket extraction. The operative time was 30 to 120 minutes (mean 52 minutes). The mean follow-up period was 15 months(range 3-36 months). Symptoms of hemospermia disappeared after one to three months. Postoperative complications, such as retrograde ejaculation, urinary incontinence, rectal injury or epididymitis, were not observed in the present study.

Conclusions

Our study demonstrates that transurethral seminal vesiculoscopy is safe and effective in the diagnosis and treatment of the seminal vesicle stones. This endoscopic technique can be performed with minimal complications. We present transurethral seminal vesiculoscopy as a new approach for the treatment of seminal vesicle stones with hemospermia. It can be easily performed with minimal complications and requires expertise in transurethral resection.



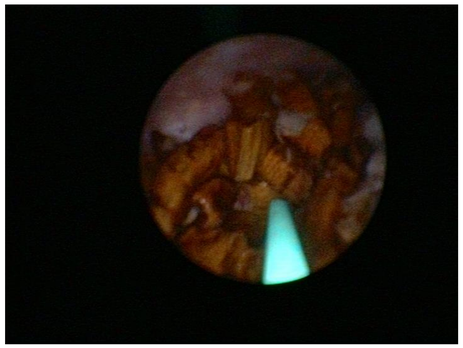


Fig5.Clearing seminal vesicle stones under ureteroscope by grasper or lithotripsy