

·*Letters to the Editor*·

The clinical curative effect of transurethral resection of the ejaculatory duct for iatrogenic ejaculatory duct obstruction after prostatic hyperthermia

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Dear Sir,

I am a urologic doctor from Urology Department of The First Affiliated Hospital of Sun Yat-Sen University of Medical Science. Recently our group find there are some patients diagnosed with iatrogenic ejaculatory duct obstruction (EDO) after prostatic hyperthermia. This finding showed it was dangerous that some nulli-breeding patients of prostatitis were treated with prostatic hyperthermia, which could induce EDO and urethrostenosis.

EDO, one of the most important causes of male infertility as it is treatable, affects 1–5% of infertile men [1, 2]. EDO may be due to congenital abnormalities, genitourinary infections, prior pelvic surgery, indwelling catheters, urethral trauma and prostate disease. However, reports on iatrogenic EDO after prostatic hyperthermia are rare. Three patients, who had been diagnosed with iatrogenic EDO after prostatic hyperthermia, underwent transurethral resection of the ejaculatory duct (TURED) in our hospital from March 2004 to June 2005.

After being diagnosed with prostatitis at another hospital, the three patients (30, 28 and 27 years old respectively) underwent per urethra rheophore ablation,

per urethra radiofrequency and per urethra microwave thermotherapy, respectively, to treat prostatitis. Dysuria and low-volume ejaculates were found 2 months later. In our hospital, the three infertile males showed normal secondary sex characteristics, testes and hormonal profiles, low ejaculate volume (0.5–1.0 mL/ejaculation), azoospermia, absence of fructose and confirmed obilaterally palpable vas deferens (> 30 mm) by the high-resolution transrectal ultrasound (TRUS) and were diagnosed as complete EDO. All of the patients were treated with TURED. Cicatricial tissue was electroblated carefully in the midline of the proximal verumontanum until the dilated debouch of the ejaculatory duct was visible. Three caveas urethral catheters with aerocyst were positioned after the procedure and left for 14–15 days. Ejaculation started 6–8 weeks after the operation. In all the 3 patients, the postoperative ejaculate volume reverted to 1.5–2.0 mL/ejaculation and sperm concentration improved to 25×10^9 – 65×10^9 /mL, pH reverted to 7.0–7.5, fructose reverted to 8–19 μ mol/ejaculation.

It is well known that the temperature inside the urethra must maintain 40–50°C when using per urethra prostatic hyperthermia for prostatitis. However, it is diffi-

cult to control the temperature accurately in a practical setting. In addition, the central zone of the prostate has to be contained in the treating range unavoidable when prostatic hyperthermia being used on the patients of child-bearing period. These will lead to solidification, necrosis and liquation of prostate glandular tissue around the urethra. EDO and urethrostenosis will then be induced after scar accrementition of the posterior urethra. Compared with other diagnoses, the diagnosis can be easily made from the symptoms of dysuresia, painful ejaculation, hemspermia, standard semen and TRUS alteration. Because of the deformation and scar accrementition of the prostatic part of the urethra, posterior urethrostenosis and false passage formation, it is very difficult to recognize the verumontanum. Pressuring the seminal vesicle with a finger through the rectum during the operation can lead to fixing the verumontanum by aggravating the dilation of the ejaculatory duct by increasing the pressure inside. At the same time, because prostatic tissue after hyperthermia is thinner (0.8–1.0 cm) than normal, lamellar electrotony must be performed with palpation with a finger through the rectum to prevent lesions of the prostatic pepsos, urethral sphincture and rectum. In agreement with other reports [3–5], the therapeutic success rate of these patients with iatrogenic EDO (100%) was much higher than that of other patients with congenital abnormalities. To prevent infection, scar

accrementition and restenosis of the urethra, the urethral catheter should be left in place for at least 2 weeks and antibiotics should be taken in sufficient quantities and for a substantial length of time. Sexual intercourse must not take place for 2 months.

Sir, we hope that other doctors could pay attention to this iatrogenic disease. Cautious consideration must be taken before use of per urethra prostatic thermotherapy to treat prostatitis. It must not used on nulli-breeding patients. In conclusion, doctors should pay more attention on the therapeutic effect than the economic effect.

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