

EFFECT OF MACROPLASTIQUE® INJECTION FOR THE PATIENTS WITH MALE INCONTINENCE AFTER TREATMENT OF PROSTATE DISEASE

Hypothesis / aims of study

After transurethral resection of prostate (TURP), the risk of incontinence is reported to be 0.4-1% (1). This might increase up to 20-40% following radical retropubic prostatectomy (RRP) (2). Transurethral injection of bulking agents was lesser morbidity compared to artificial urinary sphincter or male sling operation. This study was conducted to evaluate effectiveness of Macroplastique® injection for treatment of stress urinary incontinence which developed after prostate surgery and the factors that influence the success were evaluated.

Study design, materials and methods

The patients who suffered stress urinary incontinence after prostate surgery and experienced Macroplastique® injection in our hospital were included. Prostate treatment contained RRP, radiation therapy (RT), cryotherapy or HIFU for the prostate cancer and TURP, photoselective vaporization of prostate (PVP) or Holmium laser enucleation of prostate (HoLEP) for the benign prostate hyperplasia (BPH). Prior to the injection therapy, urodynamic study was performed. Macroplastique® injection was performed by transurethral approach using 24Fr, 0 degree cystoscope. The improvement of incontinence symptom, the change of pad usage per day, Sandvik questionnaire, Sandvik severity index (3), benefit, satisfaction and willingness (BSW) questionnaire were investigated. Incontinence was classified with dry (no pad), social continence (pad=1/day), incontinence (pad>1/day). The success of the surgery was defined in the patients who use one or less than one pad in a day and represent improvement of the incontinence symptom.

Results

From March 2006 to June 2011, a total of 23 patients were performed Macroplastique® injection. Retrospective medical records were evaluated. The mean age was 66.65 ± 6.00 and the median period to the injection from the prostate treatment was 24 months (IQR: 21-38). The median period of follow up after the injection was 3 months (IQR: 1-16). The median amount of injection was 5ml (IQR: 5-12.5). The success of the injection therapy was detected in the 9 patients (39.1%) and complete dry in the Sandvik questionnaire were found in the 3 (13.0%) patients. The number of patients whose Sandvik severity index was 8 or more than 8 (severe, very severe) was decreased from 19 to 14. Ten patients (43.5%) expressed the subjective improvement of the incontinence symptom. Eight patients (34.8%) reported that they experienced 'benefit' and had 'willingness' to recommend the injection treatment to other patients with the same symptom as well as were 'satisfied' with the treatment. Preoperative RT was a factor that influence the success of injection therapy ($p=0.045$) but the preoperative pad usage per day, abdominal leak point pressure and the injection volume of Macroplastique® showed no significant correlation with the success of the treatment. Artificial urethral sphincter insertion ($n=6$) or mid urethral sling ($n=1$) were performed in the patients who were not satisfied with the injection therapy.

Interpretation of results

The success rate of transurethral Macroplastique® injection is relatively low and previous radiotherapy for the prostate cancer is related to the lower success rate.

Concluding message

Macroplastique® injection is simple and minimal invasive treatment for the patients with stress urinary incontinence which develops after the treatment of prostate cancer or BPH. However the success rate is relatively low and RT history for the prostate cancer is related to the lower success rate.

References

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Disclosures

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