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DEFLUX®-INJECTIONS FOR THE TREATMENT OF INCONTINENCE AFTER RADICAL PROSTATECTOMY OR TUR-P

Hypothesis / aims of study

Stress urinary incontinence after prostatectomy is a postoperative complication that can have a severe effect upon the patient's quality of life. The incidence of post-prostatectomy incontinence varies with the method used, the modality of data collection and the definition of incontinence used and can be found with an incidence of 0.4-40 %. Currently there are several methods available for treatment. One option is the implantation of an artificial sphincter. More minimal invasive methods include pro-ACT implantation, male sling procedures and the transurethral application of bulking agents. Throughout time various materials have been used as bulking agents. Newer materials are collagen, polytetrafluorethylene or macroplastique®. Deflux® is a dextranomer/hyaluronic acid copolymer that is successfully used in the treatment of vesicoureteral reflux. Recently Deflux® is also used as a bulking agent in the treatment of SUI. In the literature, no data about the application of Deflux® as bulking agents in males as treatment modality for SUI after prostatectomy are available at present. The aim of this study was to present our experience, results and complications after Deflux®-injections.

Study design, materials and methods

Since 2004 13 patients (n=12 after radical prostatectomy and n=1 after TUR-P) with a mean age of 70.1 years have been treated with transurethral Deflux®-injections. Preoperative evaluation included urodynamic studies, cystoscopic examination and sonography to exclude residual urine. A total of 3 ml of Deflux® was injected submucosal into the sphincter. Average pad use per day preoperatively was 6.1. Evaluation visits took place 1 and 3 months after the first injection and again after 3 months after re-injection. Continence was defined as a maximum use of one pad during daytime for security reasons and no pad use at night.

Results

Average pad use decreased to 4.1 after injection. Two patients were completely continent and 2 patients did not show any benefit, 1 patient suffered from temporary impairment due to urgency. Side effects were sterile abscess (n=1), transient intermittent catheterisation (n=1) and mild hematuria (n=6). Summarizing all patients, 62 % were improved and 15% were continent. A total of 3 (23%) patients had to be re-injected after 4-6 weeks.

Interpretation of results

Similar to the observations in the studies on Macroplastique® injections in men and the studies on Zuidex® in women, we could observe an improvement in 77% and 15% continent. A total of 3 (23%) patients had to be re-injected after 4-6 months. No relation between the degree of SUI before injection and the postoperative result can be seen.
The side effects - like perineal abscess, urinary retention and mild macrohematuria – were comparable to the other investigations on Macroplastique® or Zuidex. Apart from the perineal abscess all other complications were only transient. Nevertheless, continence rates after Deflux®-injection cannot reach those after alloplastic sphincter or the male slings.

Concluding message

The transurethral injection of Deflux® is a save and effective treatment option for SUI after prostatectomy. Concerning the overall improvement this method is not comparable to the male sling procedures or alloplastic sphincter implantation.

References

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HUMAN SUBJECTS: This study did not need ethical approval because approved therapy but followed the Declaration of Helsinki Informed consent was obtained from the patients.