

STEPPER GUIDED TRANSRECTAL ULTRASONOGRAPHY PROACT POSITIONING

Introduction

Stress urinary incontinence following radical prostatectomy remains a significant problem for both patients and urologists, with an incidence of 5-20%. A recent surgical treatment option includes pro adjustable continence therapy (ProACT)(3). The way used to implant ProACT® employs fluoroscopic control. This doesn't permit to see both the sagittal and transverse section at the same time and may create problems in positioning balloons in the correct section in reference to the bladder neck and bladder-urethral anastomosis(1-2). As long as the efficacy of implants is strictly related to the right position beside the bladder neck, we tried to achieve a better placement control using stepper-guided transrectal ultrasonography (TRUS). This video shows the way we place ProACT implants with this new technique.

Design

After positioning the ultrasound probe in place a pre-planning of positioning was made. Distance from the ideal location to the pubic symphysis, ischiopubic rami, urethra and probe in the transversal view and distance to the skin in the longitudinal view have been recorded. The measurements are then reported on the skin and on the trocar. A Chiba needle is then used to verify the path of the trocar based on measurements previously taken. Subsequently the trocar is inserted and followed by ultrasound to the ideal position and the device inserted through the sheath. Balloons were inflated with 1 milliliter of iso-osmotic contrast solution.

Results

Surgery time was 20 minutes. Blood loss was less than 20 centiliters. The stepper-guided TRUS permits a more precise positioning in according with a pre-planning measurements. Additionally it permits the operator to use both hands on the trocar allowing more control on the procedure. The balloon volume required to reach a good results seems to be slightly lower than the usual one maybe decreasing the risk of erosion over time.

Conclusion

Our study demonstrated that the correct positioning of ProACT® implants benefits from the use of stepper-guided TRUS which permits to achieve a greater precision in reaching the desired location thus reducing wrong placements of balloons that frequently are the cause of the persistence of stress urinary incontinence.

References

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2. Gregori A, Romanò AL, Scieri F, Pietrantuono F, Incarbone GP, Salvaggio A, Granata A, Gaboardi F. Transrectal Ultrasound-Guided Implantation of Adjustable Continence Therapy (ProACT): Surgical Technique and Clinical Results After a Mean Follow-Up of 2 Years. Eur Urol. 2009 Nov 24. Epub ahead of print
3. Kocjancic E, Crivellaro S, Ranzoni S, Bonvini D, Gontero P, Frea B. Adjustable Continence Therapy for the treatment of male stress urinary incontinence: a single-centre study.

Specify source of funding or grant	Dott. Crivellaro Simone, Dott. Kocjancic Ervin and Prof. Frea Bruno are Uromedica Counselors.
Is this a clinical trial?	No
What were the subjects in the study?	HUMAN
Was this study approved by an ethics committee?	No
This study did not require ethics committee approval because	Because this surgical technique doesn't cause any harm on patients.
Was the Declaration of Helsinki followed?	Yes
Was informed consent obtained from the patients?	Yes