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TRANSOBTURATOR VS RETROPUBIC VAGINAL TAPE FOR FEMALE STRESS URINARY INCONTINENCE: ONE YEAR FOLLOW-UP IN 296 PATIENTS.

Hypothesis / aims of study

Since its introduction into clinical practice suburethral synthetic slings became the mainstay in the treatment of female stress urinary incontinence (SUI). The tape can be placed by the retropubic, transobturator or prepubic route. The originally described retropubic sling (IVS 02) procedure was later replaced by safer transobturator technique (IVS 04). Most authors indicate that transobturator or prepubic slings are highly effective. Moreover, lower intraoperative complications rate (especially bladder perforations), shorter operation time and no need to perform cystoscopy makes transobturator approach attractive alternative to the retropubic approach [1]. The aim of our study was to compare the clinical effectiveness and safety of retropubic (IVS-02) and transobturator (IVS-04) techniques based on 12 month follow-up.

Study design, materials and methods

556 sling procedures were performed in patients with SUI. The diagnostic work-up consisted of detailed medical history with Gaudentz Questionnaire, gynecological examination, pad test and multichannel urodynamic study (Libra+, MMS). Surgical procedures were performed in short general anaesthesia, according to original description using standarized surgical protocol. Patients were randomly allocated into two study groups. Patients demonstrating intrinsic sphincter deficiency (ISD) defined as Valsalva leak point pressure VLPP< 60cm H_20, patients with mixed urinary incontinence and patients with advanced urogenital prolapse (POP-Q scale >2) were excluded. After 1, 3, 6 and 12 months patients were contacted and the efficacy of the treatment and complication rates were estimated. Efficacy was assesed according to following subjective scale: totally cured, improvement and failure and confirmed by objective pad test. 296 patients fulfilled criteria of our study and have the one year follow-up: group of 140 patients, who underwent retropubic intravaginal slingplasty (IVS 02) and 156 women after transobturator procedure (IVS 04). Statistical analysis was performed using Student t-test for parametric continuous variables and chi^2 test for categorical variables, and p value < 0.05 was considered as statistically significant.

Results

Patients clinical characteristics as well as urodynamic parameters were similar in both analyzed groups.

Clinical characteristics of patients	IVS 02	IVS 04	p value
Age (mean ± SD)	55.3 ± 7.7	56.6 ± 10.1	0.66
BMI (kg/m^2) (mean ± SD)	27.9 ± 4.2	28.3 ± 4.5	0.84
Parity (median)	2 (0 – 6)	3 (1 – 6)	0.72
MUCP – Maximum urethral closure pressure (cm H_2O) (mean ± SD)	48.1 ± 28.8	50.3 ± 23.1	0.44

Mean operative time was significantly shorter in IVS 04 (transobturator) group 13±4 min. versus IVS 02 (retropubic) group 24±7 min (p<0.01). No bladder injury occurred in IVS 04 group, whereas 10 intraoperational bladder perforation (7.14 %) occurred in IVS 02 group (p<0.001). The rate of postoperative urinary retention was 3.3% in IVS 04 vs . 4.9% in IVS 02 group (NS). During one year follow-up 9 cases of tape erosion (3.04%) were diagnosed in observed group and its rates were similar in IVS 02 and IVS 04 groups (p = 0.61). After one year 296 patients were evaluated for clinical efficacy of the procedure. The overall objective stress incontinence cure rates were 77.9% and 75.7% for the IVS 02 and IVS 04 groups, respectively (P = 0.27). The rates of improvement (15.7% vs 12.8%) and failure (6.4% vs. 11.5%) were also similar in both analyzed groups (chi^2 2.59; p=0.27).

Interpretation of results

Both compared sling procedures proved to be equally effective at 12-month follow-up. Our study shows lower rate of bladder injuries in transobturator group but erosion rate are comparable in both groups. Longer follow-up and larger cohort of patients are needed to confirm these results.

Concluding message

Transobturator route for the treatment of stress urinary incontinence appears to be equally effective as retropubic one at one year follow-up. The shorter operation time and low complication rate makes the transoburator route a good alternative to retropubic approach.

References

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