36

Cervigni M[1], Natale F[1], La Penna C [1], Agostini M[1], Antomarchi F[1], Lo Voi R[1], Signore M[1], Mako A[1], Panei M[1]
1. San Carlo Hospital

SURGICAL CORRECTION OF STRESS URINARY INCONTINENCE ASSOCIATED WITH PELVIC ORGAN PROLAPSE: TRANS-OBTURATOR APPROACH (MONARC() VERSUS RETROPUBIC APPROACH (TVT()

Hypothesis / aims of study
The aim of our study was to evaluate the impact of the surgical correction of Stress Urinary Incontinence associated with Pelvic Organ Prolapse repair on the risk of post-operative voiding dysfunction as well as the anatomo-functional results . New surgical approaches to Stress Urinary Incontinence with synthetic suburethral mini-slings using a tension free technique seem to reduce the risk of this complication. With this study we studied the impact of two different approaches:a Trans-Obturator (Monarc®) and a Retropubic sub-urethral minisling (TVT® Tension-free Vaginal Tape) for the correction of stress urinary incontinence (SUI).

Study design, materials and methods
In this study we enrolled 118 patients with symptomatic clinical stress urinary incontinence and POP ≥ stage 2 according to POP-Q [1] (Pelvic Organ Prolapse-Quantification). The pre and post-operative work-up for all patients included: history (age, parity, menopausal status, HRT usage, previous prolapse surgery, other general surgical procedures and previous medical history), urogynecological symptoms survey, clinical urogynecological examination with supine stress test and evaluation of the vaginal profile using POP-Q, Q-tip test for urethral hypermobility, retrograde and voiding cystography, cystoscopy and conventional urodynamic studies.
The patients were randomized into two groups (computer generated randomization list): in the first group Stress Urinary Incontinence was corrected with the Monarc® approach[2]; in the second group the TVT® approach [3] was used. All the patients underwent concomitant Tension-free Cystocele Repair (TCR) and Levator Myorraphy (LM). The results were analyzed using two statistical tests : T-Test and McNemar Chi Square test. We considered $p<0.05$ as statistically significant.

Results
Mean age of the sample was 57.43 years (range 32-80); 73 were post-menopausal (61.8%); median parity was 2 (range 0-9). The groups were matched for age, parity and menopausal status.

There were no intraoperative and postoperative complications in either group. We obtained a good correction of Stress Urinary Incontinence (98.3% TVT® vs 97.1 Monarc®; p N.S.) and a good correction of all the symptoms associated with the bladder filling phase (p N.S. in both groups). We had a good anatomic correction of the anterior and posterior prolapse (p N.S.) with a significant reduction of urethral mobility (p N.S.), and we had no variations in the urodynamic parameters, with the exception of a statistically significant reduction of Q max (free flowmetry study) in the MONARC® group (p 0.019).

Interpretation of results
The study highlights a significant clinical and anatomical equivalence in the correction of SUI and Prolapse in both groups. A statistically significant reduction of the Q-max in the Monarc® group seems to show a greater impact of this technique on the bladder voiding phase, although this is not supported by a significant variation in voiding symptoms. A long-term follow-up could clarify possible interference of the technique on this phase of the micturition cycle and on the parameters of the filling phase.

Concluding message
Both techniques offer a satisfactory correction of SUI without compromising the correction of POP, particularly the anterior segment. Avoiding the potentially more risky retropubic approach should be an advantage but our results highlight a significant reduction of the Qmax. Although this is an isolated data, more studies are needed to evaluate the relatively new trans obturator approach with respect to the voiding phase.

References
1. Am J Obstet Gynecol, 175:10-17,1996
2. Eur Urol 2004 Feb.45 (2) 203-7.
3. Int Urogynecol J 7: 81-86, 1996

FUNDING: NONE
DISCLOSURES: NONE
CLINICAL TRIAL REGISTRATION: This clinical trial has not yet been registered in a public clinical trials registry.
HUMAN SUBJECTS: This study was approved by the ethics committee of San Carlo Hospital and followed the Declaration of Helsinki Informed consent was obtained from the patients.