452

Illiano E[1], Mearini L[2], Bevacqua M C[3], Di Biase M[2], Pastore A[4], Carbone A[4], Maglia D[2], Bini V[5], Costantini E[2]
1. *Department of Neuroscience, Reproductive Sciences and Dentistry, University Federico II of Naples, Naples,Italy,* ***2.*** *Department of Medical-Surgical Specialties and Public Health, Section of Urology and Andrology, University of Perugia, Perugia, Italy,* ***3.*** *Division of Urology,Magna Graecia University of Catanzaro, Campus of Germaneto, Italy,* ***4.*** *Department of Medico-Surgical Sciences and Biotechnologies, Sapienza University of Rome, Faculty of Pharmacy and Medicine, Urology Unit ICOT, Latina, Italy,* ***5.*** *Department of Medicine Section of Internal Medicine Endocrine & Metabolic Sciences, Perugia,Italy*

LONG TERM OUTCOMES FOLLOWING ABDOMINAL SACRAL COLPOPEXY WITH UTERUS PRESERVATION

Hypothesis / aims of study
Colposacropexy with uterus preservation, Hysterocolposacropexy (HSP) represents a possible approach in the surgical treatment of severe uterovaginal prolapse (1). There are many controversies about uterus sparing surgery, for prolapse recurrence rate, potential future uterine pathologies, and complications associated with hysterectomy (2). The aim of surgical approaches for pelvic organ prolapse (POP) is to restore normal pelvic anatomy, normal urinary, bowel and sexual function, reducing the impact of symptoms and improving the quality of life. Long term results are mandatory for an appropriate counseling and patient choice. This study aims to report anatomic and functional outcomes in patients with a minimum follow-up of 4 years after abdominal hysterocolposacropexy (AHSP), evaluating the trend of the results in the long term period.

Study design, materials and methods
64 consecutive patients referred to our Department for symptomatic uterovaginal prolapse and who underwent AHSP between December 1996 and May 2013, were assessed and 60 out of 64 who attended follow-up visits for at least 4 years were included in this study (3 pts excluded for inadequate follow up, and 1 drop-out). The study was approved by the ethical committee of the institution. All patients signed an informed consent. Preoperative evaluation included detailed medical and urogynecological surgery history, evaluation of storage symptoms, voiding symptoms, urinary incontinence (ICS standardization) and sexual activity, clinical examination with POP classified on the basis of POP-Q system, uroflowmetry with PVR measurement, urodynamic study, trans-perineal ultrasonography. Patients completed self-administered Urinary Distress Inventory Short Form (UDI-6), Incontinence Impact Questionnaire–Short Form (IIQ-7), Female Sexual Function Index questionnaire (FSFI). All patients underwent AHSP using two polypropylene meshes: one rectangular on the posterior vaginal wall and one Y-shaped on the anterior vaginal with the right and the left edges of the Y-shaped mesh passed through the broad ligaments, at an avascular point about 1 cm from the external part of the isthmus. Both meshes were fixed with 1 or 2 nonabsorbable sutures to sacral promontory. All procedures were performed by 2 senior surgeons. Patients were followed up at 1, 3, 6, and 12 months after surgery, and then annually. At each visit, patients underwent clinical examination, evaluation of urinary and sexual symptoms, uroflowmetry with PVR measurement and Patient Global Impression of Improvement (PGI) questionnaire. Furthermore patients completed self-administered UDI-6 and IIQ-7 questionnaires annually and FSFI at 1 and 2 years. All the data present in our database were collected and recorded along the f-up period. The following outcomes were recorded: a) anatomic outcomes b) symptoms outcomes, c) functional outcomes d) global patient perceptions. Statistical analysis was performed by using the non parametric Mann-Whitney U test was used for analysis of continuous variables and the categorical data were analyzed by using X2 test. All calculations were performed using IBM-SPSS® version 22.0 (IBM Corp., Armonk, NY, USA, 2013). A two-sided p-value <0.05 was considered significant.

Results
All patients had stage II-IV uterovaginal prolapse: mean age 59.56±11.12 years, mean BMI 24.68±4.03, median parity 2 (range 1- 5). Median follow-up was 60 months (range 48-132 months). Anatomical success rates was 100% for uterine prolapse, 72.4% and 76.4% for anterior and posterior compartment respectively (recurrences < stage II). Voiding symptoms and storage symptoms were significantly improved after AHSP, they disappeared in 92% and 60% respectively at the last follow-up. The time trend curve for both symptoms is represented in fig. 1. De novo voiding symptoms were absent, while the novo storage symptoms were present in 25% of the women (10% nocturia, 10% slight urgency, 5% increased urinary frequency); they appeared in the first 3 months after surgery in 15% of the cases but tend to decrease slowly during the three years after AHSP (80% disappeared spontaneously, 20% after anticholinergic therapy). Patients pre-operatively incontinent were 29.9% (13.3% urgency incontinence (UI) and 16.6% stress incontinence (SUI)). After surgery, SUI disappeared in 60% of the patients and UUI in 87.5% of patients. De novo SUI appeared in 12% in the first months after surgery, and were treated with physiokinesitherapy (66.6%), electrostimulation (16.7%) and anti-incontinence surgery (16.7%). De novo UUI appeared in 3 cases (5.7%) (1 in the first months after AHSP, the other 2 after 2 and 6 years after surgery)
63.6% of patients with pre-operative sexual difficulties improved post-operatively and 13% showed persistent symptoms, 7% had not sexual intercourse. The incidence of de novo sexual disorders was 7% in the first year after surgery and in all the cases vaginal dryness was the cause. Preoperatively about 23.3% of women had not sexual intercourse and after surgery 35.7% of them started sexual intercourse again. Mesh erosion rate was 3%. 1 patient underwent hysterectomy with bilateral salpingo-oophorectomy at 7 years after AHSP for cystadenoma. Post-operative uroflowmetry data (Qmax baseline 20,72± 10,06 vs Qmax end-point 24,24± 11,67 p<0.001) , IIQ7 and UDI6 scores showed significant improvement. PGI was 1 or 2 in 82.1% and 15.9% of the cases respectively.

Interpretation of results
The results confirm AHSP is an efficacy procedure for the treatment of uterovaginal prolapse, not only for the anatomical results but also for functional results and patient satisfaction. The anatomical success rate of 100% for uterine, 72.4% and 76.4% (for anterior and posterior compartment) is an optimal result taking into account that all the persistences were asymptomatic, of low

stages (I-II) and remained stable in the time and no patient needed reoperation. Voiding and storage symptoms significantly improved but storage symptoms showed a particular trend in the time demonstrating different physiopathological causes. In fact they tend to decrease in the first years probably for the disappearance of the obstructive effect of POP but in the long term other causes such as the ageing make the disturbance more frequent. De novo storage symptoms, more frequent immediately after surgery tend to improve spontaneously in the following 3 years. No patient showed de novo voiding symptoms. UUI and SUI significantly improved after surgery (87.5% - 60%) with 5.7% and 12% appeared the novo respectively. Only 1 patient with de novo SUI underwent anti-incontinence surgery, all the other cases with persistent or de novo UI needed only conservative treatments. De novo UUI appeared in 5.7% of the cases probably for reasons not related to surgery. These excellent functional outcomes are confirmed by the high PGI scores (1 in 82.1% and 2 in 15.9 % of the cases).

Concluding message

This study confirms the excellent outcome of AHSP in the treatment of uterovaginal prolapse in the long term follow-up. Anatomical results are stable in the time and functional outcomes showed significant improvements which persisted after 4 or more years. These data are confirmed by the high subjective patient satisfaction.

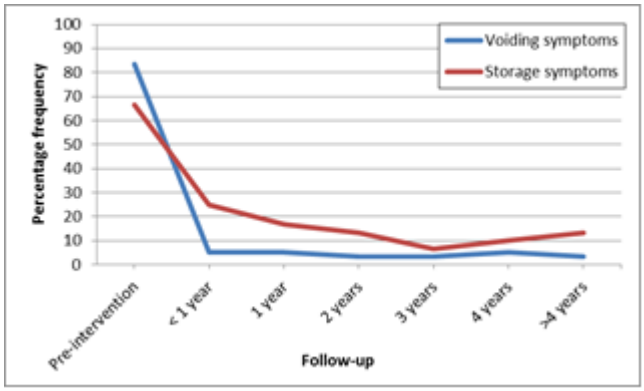

Figure 1: The time trend curve of Urinary Symptoms

References

1. Roovers, JP et al.. A randomised controlled trial comparing abdominal and vaginal prolapse surgery: effects on urogenital function. BJOG 111(1), 50–6 (2004)
2. Thakar, R, Ayers, S, Clarkson, P, Stanton, S, Manyonda, I. Outcomes after total versus subtotal abdominal hysterectomy. N Engl J Med 347 (17), 1318-25 (2002)

Disclosures

Funding: NONE **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics Committee:** Comitato Etico Aziende Sanitarie Umbria The study was approved by the IRB, CEAS N.2524/15. **Helsinki:** Yes **Informed Consent:** Yes