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LONG TERM OUTCOMES FOLLOWING ABDOMINAL SACRAL COLPOPEXY FOR VAGINAL VAULT PROLAPSE

Hypothesis / aims of study

Sacrocolpopexy (SC) represents the gold standard in the surgical treatment of vaginal vault prolapse (1). Pelvic Organ Prolapse (POP) alters significantly women's quality of life and can lead to withdrawal from social activity due to urinary, anorectal, and sexual symptoms. (2) It is estimated that 30% of women aged 50–89 yr will seek consultation for pelvic floor disorders. (3) The aim of POP surgery is not only to restore anatomy but also to improve or relieve symptoms. Long term results are mandatory for patients perspective and counselling and this study aims to evaluate anatomic and functional outcomes up to 4 years after abdominal sacrocolpopexy (ASC)

Study design, materials and methods

71 consecutive patients referred to our Department for symptomatic vault prolapse and who underwent ASC between June 1996 and January 2013, were assessed and 67 out of 71 who attended follow-up visits for at least 4 years were included in this study (4 pts excluded for inadequate follow up). All patients signed an informed consent. The study was approved by ethical committee. Preoperative evaluation included detailed medical and urogynecological surgery history, evaluation of voiding symptoms, storage 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 ASC using 2 rectangular polypropylene meshes, fixed with 1 or 2 nonabsorbable sutures to sacral promontory after a wide preparation of anterior and posterior vaginal walls. 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 a vaginal vault prolapse (stage III-IV), a mean age 65.6± 8.18 years, mean BMI 26.40±3.50, median parity 2 (range 1- 4) Median follow-up was of 60 months (range 48-144 months). Anatomical success rates was 100% for apical prolapse, 74.6% and 69.4% for anterior and posterior compartment respectively (recurrences < stage I-II). Post-operative overall urinary symptoms were significantly improved: voiding and storage symptoms disappeared in 95.1% and 85.4% respectively. The time trend curve for both symptoms is represented in fig. 1. De novo voiding symptoms were present in only 1 patient. The novo storage symptoms tend to increase till 21% at 1 year follow-up and then they improve within the third year (20% after urinary tract infection treatment, 40% spontaneously, 40% after anticholinergic therapy). Patients pre-operatively incontinent were 31.34% (17.94% urgency incontinence and 13.40% stress incontinence). After ASC, SUI disappeared in 79.2% of the patients and UUI in 92.2% of patients. The time trend curve of UI is represented in Fig. 2. De novo SUI and UUI appeared in 9.3% and 1.8% respectively in the first months after surgery. De novo UUI disappeared 1 year after surgery, while SUI tend to disappear during the second year (50% for physio kinesitherapy and 50% for anti-incontinence surgery). After surgery 62.5% of patients with preoperatively sexual difficulties improved, 25% showed persistent symptoms, 12.5% had not sexual intercourse. The incidence of de novo sexual disorders was 20% and in 70% of the cases they appeared within 2 years after surgery (33.33% for mesh erosion, 66.67% for vaginitis) . Mesh erosion rate was 3%. Post-operative uroflowmetry data (Qmax baseline 14,62±9,13 vs Qmax end-point 25.45±14,89 p<0.001) , IIQ7 and UDI6 scores showed significant improvement. PGI was 1 or 2 in 73.13% and 26.87% of the cases respectively.

Interpretation of results

The results confirm ASC is an excellent procedure for the treatment of vaginal vault prolapse, not only for the anatomical results but also for functional results and patient satisfaction. The anatomical success rate of 100%, 74.6% and 69.4% (for apical, 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. Finally no patient needed reoperation. Voiding and storage symptoms significantly improved (95.1% and 85.4% respectively). Only 1 patient presented de novo voiding symptoms while de novo storage symptoms, present at 1 year in 21% of the cases tend to improve in the time. UUI and SUI significantly improved after surgery (92.2% - 79.2%) with 1.8% and 9.3% appeared the novo respectively. The time trend curve for SUI showed a 20% of patients incontinent in the first year and then an improvement due to the patients who underwent anti-incontinence surgery (50%) or physio kinesitherapy (50%).

On the contrary UUI, persisted in the first month after surgery and then improved in the time. These excellent functional outcomes are confirmed by the high PGI scores (1 in 73.13% and 2 in 26.87 % of the cases).

Concluding message

This study confirms the excellent outcome of ASC in the treatment of vaginal vault prolapse in the long term follow-up. Anatomical results and functional outcomes showed significant improvements which persisted after 4 or more years. These data are confirmed by the high subjective patient satisfaction. On these basis it is possible to justify the actual trend in the treatment of vaginal vault prolapse which more and more is moving toward SC performed with mini-invasive techniques (laparoscopic or robotic assisted procedures) awaiting for long-term results.

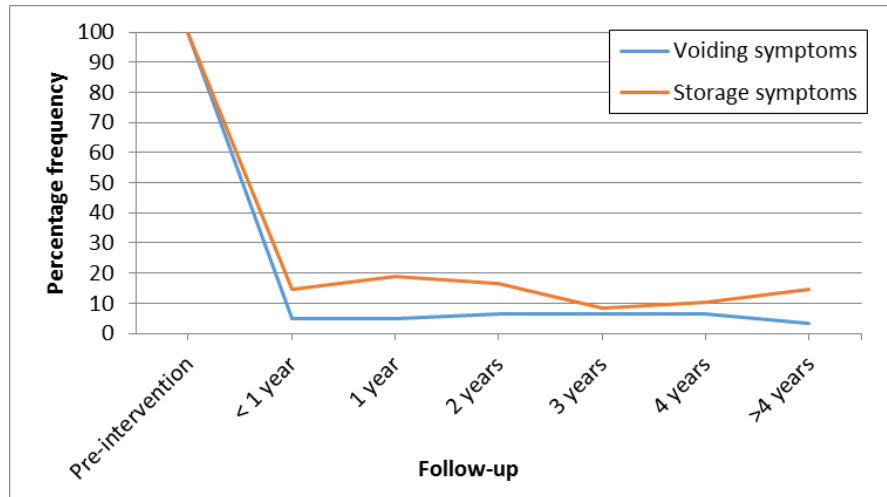


Figure 1: The time trend curve of Urinary Symptoms

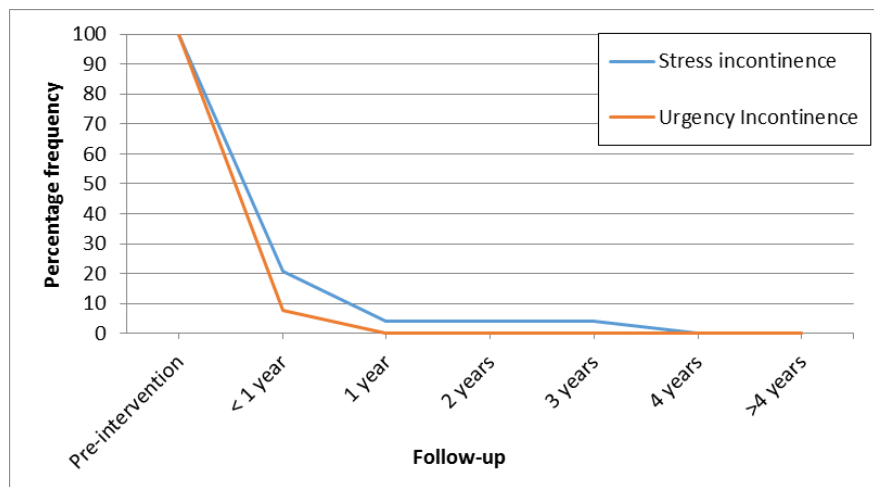


Figure 2. The time trend curve of Urinary Incontinence

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Disclosures

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