

LONG TERM RESULTS OF POSTERIOR INTRAVAGINAL SLINGPLASTY (P-IVS) COMBINED WITH BILATERAL SACROSPINOUS LIGAMENT FIXATION (SSLF) IN PATIENTS WITH PELVIC ORGAN PROLAPSE

Hypothesis / aims of study

Pelvic Organ Prolapse (POP) is characterized by a descent of the pelvic organs: uterus, vagina, bladder, rectum, small bowel and mesenterium. In most cases concomitant urinary, defecation, sexual problems or pelvic pain are present. POP increases with age and causes great impact on quality of life. In the past many different techniques have been described about POP surgery, but the search for the ideal technique still is going on. In 1993 Petros et al. created a new vaginal strategy of pelvic floor surgery which addressed POP and symptoms, site specific ligament repair, based on the Integral Theory.

As, in our experience, this procedure was not sufficient enough to bring the apex far back resulting in a normal vaginal length, we changed our strategy and additionally fixed the posterior sling bilaterally to the sacrospinous ligament. Furthermore, in case of concomitant anterior wall prolapse we combined the posterior IVS with insertion of an anterior transobturator 4-arm mesh (ATOM4), whereas the posterior ATOM-arms were sutured to the sacrospinous ligaments on both sides as well. After establishing our new surgical strategy we performed a prospective observational study. The objective of this study was to find an answer to the above mentioned important questions and to evaluate the anatomical and symptomatic success rates obtained by our procedure in comparison to the data from the literature.

Study design, materials and methods

Patients who were admitted with various grades of POP between October 2009 and January 2014 and performed combined P-IVS and bilateral SSLF were included in this study. In addition, patients who admitted for urinary and defecation symptoms as the primary complaint and POP was detected during vaginal examination and surgical treatment was performed were also included. All of the patients in the latter group were resistant to conservative and medical treatment. Demographic data, preoperative and postoperative vaginal examination findings, complaints and quality of life of the patients were noted. For subjective assessment, POPDI-6 questionnaire, visual analogue scale and quality of life assessments were used.

POP grade was evaluated and graded according to Baden Walker halfway system between grade I and IV. Valsalva maneuver was used to evaluate the extent of POP. Stress test was performed after the reduction of prolapse in patients with grade III-IV POP. The patients were classified into 3 groups for vaginal compartments, 86.5% of the patients had anterior prolapse 99% had posterior prolapse and 100% had apical prolapse.

All of the patients had P-IVS and SSLF. In patients with anterior or posterior vaginal wall prolapse or stress urinary incontinence, one or more of the following procedures; anterior transobturator mesh (ATOM), posterior bridge repair and TOT. Bilateral sutures were passed through sacrospinous ligaments and central part of the P-IVS mesh was fixed with these sutures. Unlike classical ATOM, posterior arms of the 4-arms mesh were secured also to sacrospinous ligaments with another pair of sutures.

Results

A total of 267 patients with a mean age of 54.9 (28-88) were included in this study. For anterior and posterior vaginal wall prolapse and stress urinary incontinence; anterior transobturator mesh (ATOM), posterior bridge repair and transobturator tape (TOT) procedures were performed in 163, 226 and 199 patients, respectively. In preoperative evaluation, 86.5% of the patients had anterior (Grades; 1:20.3%, 2:17.7%, 3:38.5% and 4:23.4%), 99% had posterior (Grades; 1:12.8%, 2:38.5%, 3:26.7% and 4:20.9%) and 100% had apical (Grades; 1:25.8%, 2:25.1%, 3:28.5 and 4:20.6%) prolapse.

The mean operation time was 149.8 (95-225) minutes, mean hospitalization time was 2.9 (1-10) days and mean follow up time was 28.7 (12-63) months. When surgical success was defined as grade 0 or grade 1 according to the Baden-Walker halfway classification, success rates for anterior, posterior and apical segments at 3rd month were 92.1%, 98.1% and 97.3%; and 82.4%, 96.2% and 95.4% at 1st year, respectively (Figure-1). Bladder perforation was seen in 8 (3%) patients, rectal injury in 3 (1.1%) patients, bleeding requiring transfusion in 1 (0.4%) patient and wound infection in 1 (0.4%) patient. At postoperative 1st year follow-up, mesh erosion was observed in 5 (1.9%) patients, pelvic pain in 12 (4.5%) patients, urinary problems in 4 (1.5%) and defecation problems in 9 (3.4%) patients and dyspareunia in 27 (10.1%) patients. Seven (2.6%) patients were reoperated for POP and another 6 (2.2%) patients for stress urinary incontinence.

At follow-up visits after 1 year 93.6% of the patients responded as "No" to 2nd and 3rd questions of POPDI-6 questionnaire. Within the same period 78.2% of the patients reported that their symptoms did not affect their quality of life, 7.5% stated that they were affected minimally, 9.8% moderately and 4.5% severely. In postoperative evaluation with visual analogue scale (between 1-10) mean satisfaction rate was 9.1±2.1. A total of 92.5% of the patients stated that they would recommend this treatment to others.

Interpretation of results

Our surgical technique is the first combining two vaginal procedures for POP. Our series include a high number of patients and has one of the highest success rates in the literature. Complication rates are low when compared to similar series.

Following the procedures for apical compartment defects, most of the recurrences occur at anterior wall among all compartments. The majority of the recurrences in our series were related to anterior wall which was related to preoperative evaluation and neglecting some of the low grade cystoceles rather than the recurrence or failure of the performed surgery.

Concluding message

Total pelvic reconstruction with bilateral SSLF and P-IVS has a high success and low complication rates and also has a high repeatability. Concomitant procedures like ATOM, posterior bridge repair and TOT can also be performed by the same route safely when needed, without increasing the complication rates. We think that surgeon experience and following the principles of vaginal reconstructive surgery have of utmost importance and these are the factors mostly contributed to our good results.

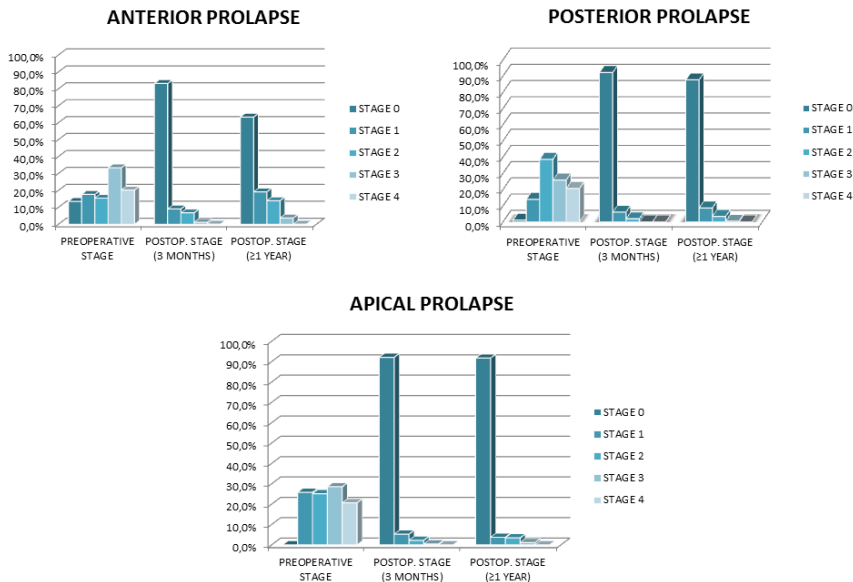


Figure-1. Preoperative and postoperative prolapse grades

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Disclosures

Funding: None **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics Committee:** Pamukkale University School of Medicine Ethics Committee **Helsinki:** Yes **Informed Consent:** Yes