

## LAPAROSCOPIC SACRAL COLPOPEXY FOR THE CORRECTION OF APICAL PELVIC ORGAN PROLAPSE: PRELIMINARY DESCRIPTIVE SERIES ANALYSIS

### Hypothesis / aims of study

Abdominal Sacral colpopexy (ASC) is the gold standard treatment for symptomatic apical vaginal prolapse and vault vaginal prolapse with or without previous complete or partial hysterectomy. ASC achieves better functional and anatomical outcomes than a vaginal approach. There are different techniques that can be used in the laparoscopic approach (LSC); the choice of the most appropriate technique depends on the symptoms and the type of pelvic organ prolapse (POP). The most frequent indications are severe prolapse, short vaginas, young and sexually active women. Knowledge of normal vaginal support is essential. Both, theory of Petros and Ulmsten (1990) and DeLancey's three levels of pelvic support are useful to understand the physiopathology of POP in order to choose the most appropriate surgical technique for each patient.

A descriptive analysis of LSC series was performed including all patients from the introduction of the technique in the Unit Urogynaecology of our center.

### Study design, materials and methods

This is a retrospective study. 48 patients with apical vaginal prolapse were included, who were treated between October 2013 and December 2015. A Mesh was used in all cases with the intention of strengthening and/or repair of damaged ligamentous structures. Different types of meshes have been used for different approaches: insertion of a posterior mesh in the levator ani, cervicopexia if previous subtotal hysterectomy, bilateral reconstruction of uterosacral ligaments or colpopexy using an anchor in the anterior vaginal wall and taking it to the sacral promontory.

Women with symptoms of urinary stress incontinence (SUI) or with positive test with or without prolapse reduction were considered as having occult stress urinary incontinence (OSUI). In some of these patients were placed a transobturator tape (TOT) at same time.

### Results

The mean age was 60 years old (DS 14,5) at time of surgery. Median body mass index (BMI) was 26,6 (DS 7,12). No patients presented life-threatening comorbidities. All of them presented symptomatic POP, 35,4%(n=17) presented SUI, 12,5%(n=6) dyspareunia, 10,4%(n=5) recurrent urinary tract infections.

43,75%(21) received previous treatment: 6,25%(n=3) non-surgical, 37,5%(n=18) complete or partial hysterectomy and 18,75%(n=9) also associated a vaginal procedure (colporrhaphy). A polypropylene multifilament macropore mesh was placed in all cases. Different types of meshes were used according to the need of each patient. 41,6%(n=20) underwent a partial hysterectomy at same time of LSC and in 33,3%(n=16) a vaginal procedure was performed (colporrhaphy), in this group, perineoplasty was done in 10,4%(n=5) and one have both procedures.

TOT was placed in 20,8%(10) of the patients in order to correct the SUI. The median surgical time was 235 minutes (DS 70,57), there were no intraoperative complications.

The Clavien-Dindo classification was applied to analyse postoperative complication: there were 20,8%(n=10) group 1, 14,5%(n=7) were treated with nonsteroidal anti-inflammatory drugs and 6,25%(n=3) required physiotherapy; there were 4%(n=2) group 3B, a patient presented mesh extrusion through the vagina and required excision of the mesh and the other patient suffered compartment syndrome of the right leg due to the position during surgery that required active surgical management.

The mean follow up was 17,5 months (30 - 4). At the end of the study, the objective cure rate (no prolapse in any compartment) was 79,2%. The recurrence rate was 20,8%(n=10), all of which recurred in the anterior vaginal wall and were asymptomatic. According to the Barden-Walker classification, 12,5%(n=6) patients had grade 1 relapse, 4,1%(n=2) grade 2 and 2%(n=1) grade 3. No further surgeries were performed on these patients.

Regarding the urinary incontinence, 4,1% (n=2) developed de novo urinary urgency incontinence, 6,25% (3) improved their SUI and the remain dry. All the patients with active sexual life were satisfied with the results. The subjective satisfaction rate was 90%.

### Interpretation of results

Both Cochrane database and the National Institute for Clinical Excellence have recommended Abdominal Sacral Colpopexy as the gold standard treatment of apical vaginal prolapse, with better functional and anatomical outcomes than all vaginal procedures. However, the results of laparoscopic procedures depend on the surgeon's experience.

The complications presented in this study might be influenced either by the learning curve/surgeon's experience or the different techniques applied according to the patient needs.

### Concluding message

ASC is a technique that aims to reconstruct normal anatomy and to prevent further POP. The laparoscopic approach provides benefits to the patients after the initial learning curve. A better understanding of the anatomy of pelvic support, the symptoms and the pathogenesis of POP is needed to establish the best approach for each patient.

More patients and a long-term follow up are required to confirm this results.

### Disclosures

**Funding:** No Disclosures **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** It is a retrospective review **Helsinki:** Yes **Informed Consent:** Yes