

## A COMPARATIVE STUDY OF LAPAROSCOPIC SACROCOLPOPEXY AND LAPAROSCOPIC LATERAL SUSPENSION FOR PROLAPSE REPAIR – ONE YEAR OUTCOME.

### Hypothesis / aims of study

Sacrocolpopexy is the gold standard operation for the management of apical pelvic organ prolapse. Although, it has proven to be a durable technique is associated with many complications including possible injury to blood vessels, nerves, bladder and bowel. Laparoscopic lateral suspension described by Dubuisson represents an alternative procedure, a minimally invasive technique, which offers satisfactory treatment results.

The aim was to compare the 1 - year results of laparoscopic sacrocolpopexy and laparoscopic lateral suspension.

### Study design, materials and methods

This is the first study to assess anatomical and functional outcome of two approaches.

40 of female patients, who underwent laparoscopic sacrocolpopexy (LSC) (n=20) or laparoscopic lateral suspension (LLS) (n=20) were enrolled in the study.

Inclusion criteria : isolated symptomatic apical compartment prolapse (uterine prolapse stage II and III) with or without posterior descent (POP-Q  $\geq$  stage II),

Exclusion criteria : predominant anterior vaginal compartment prolapse, isolated posterior vaginal compartment prolapse, age over 70 years old, prior surgery for pelvic organ prolapse, multiple abdominal operations, advanced cardiovascular disease, chronic obstructive pulmonary disease, active cancer disease.

Baseline and follow-up assessments included clinical examination exploiting the Pelvic Organ Prolapse Quantification system (POP-Q). Prolapse symptoms, urinary incontinence and sexual life were evaluated using validated Quality of life (QoL) questionnaires - Pelvic Floor Distress Inventory Questionnaire (PFDI-20), Pelvic Floor Impact Questionnaire (PFIQ-7) and Pelvic Organ Prolapse/Incontinence Sexual Questionnaire, IUGA-Revised (PISQ-IR).

A detailed comparison of results 1 year was made. Data were analysed using appropriate statistical methods. Main outcome measures were anatomical effect, recurrence or de novo prolapse, operating time, intra- and postoperative complications, mesh erosions.

### Results

All women had laparoscopic sacrocolpopexy and lateral suspension using polypropylene mesh. Mean age 60 – years old. The patients with uterus initially underwent laparoscopic supracervical hysterectomy. Patients with primary posterior descent had concomitant colpoperineorrhaphy.

Compared to the LLS group, the LSC group was characterized by longer operating time

(147,5 minutes vs. 221,05 minutes ,  $p < 0,05$ ). There were no serious peri- or postoperative complications.

Objective anatomic success (POP point C Stage  $\leq$  1) rates were similar between groups after statistical adjustment, 80 % and 85 % after LSC and LLS, respectively.

However, the dominant recurrence sites were different with anterior compartment, most frequent after LSC (POP-Q ANT II – 50% of patients and POP-Q ANT III – 30% of patients).

We found “cystocele as the dominant prolapse” , significantly affected recurrence after LSC comparing to LLS ( POP-Q ANT II – 10% of patients and POP-Q ANT III – 15% of patients).

No mesh erosions have been recognized during the follow up.

In all cases the disappearance of symptoms or a significant improvement was registered. In all cases quality of life was much better.

### Interpretation of results

Sacrocolpopexy may be challenging due to the dissection at the level of the promontory, particularly in obese patients or when an anatomic variation exists.

Long learning curve become a significant barrier of sacrocolpopexy which requires advanced laparoscopic skills.

Cystocele recurrence following laparoscopic sacrocolpopexy is common, and it seems that such recurrence is related to mesh position. In laparoscopic lateral suspension a T-shape mesh is used. The main part of a mesh is applied on the anterior vaginal wall on the surface corresponding to the cystocele. The lower the mesh reaches towards the bladder neck, the lower is the likelihood of anterior compartment recurrence. It may therefore be beneficial to develop techniques that reliably extend sacrocolpopexy mesh to the bladder base.

### Concluding message

Laparoscopic lateral suspension is an interesting alternative to the laparoscopic sacrocolpopexy because of the low risk of complications and the satisfactory results.

Prospective controlled trials comparing this technique with laparoscopic sacrocolpopexy are necessary.

### References

1. Treatment of genital prolapse by laparoscopic lateral suspension using mesh: a series of 73 patients. *J Minim Invasive Gynecol.* 2008 Jan-Feb;15(1):49-55. doi: 10.1016/j.jmig.2007.11.003. Dubuisson JB1, Yaron M, Wenger JM, Jacob S.
2. Prise en charge laparoscopique des prolapsus génitaux par suspension latérale au moyen d'une prothèse : une série de 377 cas. *Rev Med Suisse* 2011; 2084-2088 Isabelle Eperon, Carine Luyet, Michal Yaron, Jean Dubuisson, Jean-Bernard Dubuisson

### Disclosures

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