

HOW SAFE IS SACROPEXY? PERIOPERATIVE COMPLICATIONS IN 769 WOMEN: A SINGLE CENTER EXPERIENCE.

Hypothesis / aims of study

Sacropexy is considered to be the golden standard in the treatment of pelvic organ prolapse (POP) in women, offering superior anatomical results compared to vaginal approaches (1). The switch from the abdominal (open) sacropexy to a minimally invasive, laparoscopic approach over the last 20 years, reduced morbidity and offered faster patient recovery while retaining the benefits of the open surgery (2). According to the current literature, the complications' rate vary from 1-11% and the relevant existing data suffer from the unavoidable effect of the learning curve, inconsistent documentation, variable and dissimilar techniques and eventually the bias from fragmented data collection from various centres who participate to the analyses (3). Aim of this study is to present data regarding the perioperative complications of sacrocolpopexy in a large cohort of patients who were treated in a single centre from one surgeon with the same, unchanged, nerve-preserving sacropexy technique.

Study design, materials and methods

This is a single center, retrospective analysis of all patients who underwent sacropexy for POP in our institution between January 2007 and December 2016. All procedures were performed by the same experienced surgeon beyond learning curve, using the same surgical technique. Collected data included age at the time of surgery, body mass index (BMI), comorbidities, smoking, previous abdominal surgery and previous surgical procedures for the treatment of POP as well as concomitant procedures performed at the time of sacropexy. All complications that occurred during and up to 3 weeks after surgery were documented. Statistical calculations included: cross-tabs and non-parametric correlations analysis. Logistic regression was used to provide a model of identifying risk factors for the occurrence of complications. SPSS (v. 24) was used for the analysis.

Results

During the ten-year period between January 2007 and December 2016, 769 women underwent sacropexy: 580 per laparoscopy, 168 per laparotomy and 21 were converted from laparoscopy to laparotomy. Mean age and mean BMI of all patients were 59.9 years (min. 30.0, max. 82.1, SD 10.6) and 25.0 kg/m² (min. 16.0, max. 44.1, SD 3.5). 27 complications occurred in 27 patients (3.5%) including 5 injuries (one respectively of the bladder, the mesocolon, the rectum - during concomitant colporrhaphy - and two of the iliac vessels) , 7 hematomas/bleedings, 2 cases of postoperative ileus, 4 wound infections and 2 cases of small intestine herniation in the trocar insertion point (Table1). The presence of at least one concomitant disease at the time of surgery was positive correlated with the occurrence of complications ($p < 0.001$) and could be identified as a risk factor for adverse event (logistic regression, OR 2.97, $p = 0.01$) (Table2).

Interpretation of results

The rate of complications in this large patient cohort was low and the majority of them were minor and easy to resolve, although surgical intervention was often required. Age and BMI, which were correlated with higher rate of complications in other reports, could not be identified as risk factors in this study. Also the number of previous surgical procedures and concomitant procedures like hysterectomy, vaginal cystocele and rectocele repair as well as colposuspension and lateral repair did not increase the complications rate.

Concluding message

Sacrocolpopexy can be considered as a safe procedure at every age and also in patients with high BMI and multiple previous procedures. Patients for sacropexy, especially those with multiple comorbidities should be selected carefully.

Table 1: Complications occurred during the ten year period of the study.

Event	N
Injury	6
• Left common iliac vein	1
• Bladder	1
• Bowel	2
• Mesocolon	1
• Right common iliac artery	1
Bleeding / Hematoma	7
• Abdominal wall hematoma	3
• Hematoma Cavum retzii	1
• Intra-abdominal bleeding	2
• Vaginal bleeding	1
Infection	4
• Cutaneous wound infection	3
• Pelvic seroma	1
Other	10
• Ileus	2
• Small intestine herniation in trocar insertion point	2
• Lower extremity deep vein thrombosis	1
• Voiding difficulties / Residual Volume	3
• Foreign body retention	1
• Symptomatic hydronephrosis Grade I-II	1
Total	27

Table 2: Characteristics of the two groups. POP: pelvic organ prolapse 1: Pearson chi, 2: t-test

	Patients <i>with</i> complications N=27	Patients complications without N=742	
Age (mean, SD)	57.98 (12.71)	60.03 (10.56)	<i>n.s.</i>
BMI (mean, SD)	25.00 (4.26)	25.00 (3.56)	<i>n.s.</i>
Smoking (n)	2 (7.1%)	57 (7.7%)	<i>n.s.</i>
≥ 1 concomitant disease(s)	8 (28.6%)	107 (14.4%)	<i>p=0.02</i> ¹
Previous abdominal surgery (any indication)	20 (71.4%)	542 (73.1%)	<i>n.s.</i>
Previous surgery for POP			
n=1	6 (21.4%)	179 (24.1%)	<i>n.s.</i>
n=2	3 (10.7%)	83 (11.2)	<i>n.s.</i>
n≥3	1 (3.6%)	58 (7.8%)	<i>n.s.</i>
Mode of surgery			
LSC	13 (46%)	567 (76%)	<i>n.s.</i>
Abdominal	10 (36%)	158 (21%)	<i>n.s.</i>
Conversion	5 (18%)	16 (3%)	<i>n.s.</i>
Operating time (SD)	158' (47)	138' (37)	<i>p=0.007</i> ²
Concomitant surgery			
Total Hysterectomy	4 (14.8%)	61 (8.2%)	<i>n.s.</i>
Supracervical hysterectomy	7 (26%)	248 (33%)	<i>n.s.</i>
Colposuspension/ lateral repair	4 (14.8%)	56 (7.5%)	<i>n.s.</i>
Colporrhaphy	11 (40.7%)	276 (37.2%)	<i>n.s.</i>

References

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Disclosures

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