

## **ANATOMICAL AND FUNCTIONAL OUTCOME AFTER LAPAROSCOPIC SACRAL COLPO(PERINEO)PEXY: A PROSPECTIVE FOLLOW UP OF 132 PATIENTS.**

### **Hypothesis / aims of study**

Sacral colpopexy is the gold standard to cure vaginal vault prolapse. It preserves maximum vaginal length and capacity and has long term objective cure rates ranging between 86 and 100%. Doing this operation by laparotomy is associated with a serious morbidity, making the operation unpopular in elderly patients. Laparoscopic approach may reduce the access associated morbidity but this could be at the expense of compromise on technique. In 1996 we decided to substitute the abdominal by laparoscopic approach whenever feasible, based on a pragmatical judgment. We aimed to evaluate the feasibility, the anatomical and functional outcome and more recently, the effect on quality of life (QoL) in a consecutive series of 140 patients undergoing sacrocolpopexy starting from the first laparoscopic case onwards and operated by a single surgeon, with a minimal follow up of 6 months at the time of submission of this abstract.

### **Study design, materials and methods**

Preoperative and postoperative history consisted of a structured interview by a standardized questionnaire assessing prolapse symptoms, bladder, bowel and sexual function. Pelvic organ prolapse was clinically assessed in the half-sitting position according to the Baden-Walker classification and since October 2002 in addition by POP-Q. All patients underwent preoperative multichannel urodynamics according to the ICS standards and RX colpocystodefaecography on indication. From September 2002 onwards each patient completed a pre- and postoperative prolapse specific QoL-questionnaire. Laparoscopic technique consisted of open laparoscopy, mono- and bipolar energy and extra-corporeal suturing technique. Different implants were used throughout this study; however the material was anchored with multiple Etibond sutures both to the frontal, posterior and apical side of the vault. The implant was stapled to the promontory by at least 3 staples. Perineo- and rectopexy or other additional procedures were associated whenever required. The surgeon could decide at his discretion whether a primary or secondary (=conversion) laparotomy approach would be used. All patients were invited for clinical reassessment at 6 weeks, 6 months and annually after. Subjective cure was defined as the disappearance of prolapse symptoms and objective cure as no prolapse equal or greater than grade II. QoL assessment prior to 2002 was done by a telephone survey by an independent assessor using a validated prolapse specific QoL questionnaire (1). Overall patient satisfaction with the operative result was determined by a visual analogue scale from 0 to 10 at the longest time of follow up (0=poor; 10= excellent)

### **Results and interpretation of results**

140 patients underwent sacral colpopexy between May 1996 and September 2003; 132 completed the 6 months follow-up assessment. Mean age at operation was  $63 \pm 10.2$  y. Thirty-three percent of the patients underwent a concomitant procedure: subtotal hysterectomy (8%), rectopexy (16%) or an anti-incontinence procedure (4%). There were 20 (14.2%) primary laparotomies usually based on surgical history. Hence the remainder 120 (85.5%) were started laparoscopically but only 107 (89.1%) were completed so. With growing experience the proportion of laparoscopic completion raised from 51% (case 0-30) to 96% (91-120) ( $P < 0.05$ ). Skin-to-skin time for complete laparoscopic procedures was  $189 \pm 48$  min, dropping from  $204 \pm 25$  min (0-30) to  $159 \pm 43$  min (91-120) ( $P < 0.05$ ). Intraoperative complications included one bladder laceration and one ureter trauma, both recognised intraoperatively. Length of hospital stay was  $5 \pm 3.6$  d. Major postoperative complications included one postoperative bleeding without specified origin on second look, two patients with pulmonary embolism recovering completely ( $\geq 6$  weeks) and two patients presenting with small bowel strangulation through a peritoneal suture. The median follow up was 37 (range: 6-86) mo. Subjective cure rate was 91% and in an additional 9% the prolapse symptoms were improved. Of patients with preoperative stress incontinence ( $n=55$ ) half experienced improvement, while 12% of the population developed de novo stress incontinence at any time point during follow up period.

Only four opted for operative treatment. In 48% preoperatively present constipation improved, 8% had deterioration and 9% developed de novo constipation. Eighteen (65%) of the patients with preoperative sexual dysfunction experienced improvement while 2% developed de novo dyspareunia. Objective cure rate was 86%. Of the 18(14 %) failures, 4(3%) were at the level of the vault, all occurring within one year following the operation. The other failures were at anterior vaginal side: 5 (4%) and at the posterior side:9 (7%). Four percent of the entire population required a second intervention for prolapse. Based on the postoperative telephone survey patients had none or only limited impairment of QoL. In the part of the population filling out a pre- and postop QoLQ, there was highly significantly improvement. VAS-satisfaction score ranged between 3 and 10 with a median of 8, consistent with good satisfaction

#### **Concluding message**

We have been able to implement laparoscopic approach towards sacral colpopexy, yielding objective and subjective cure rates comparable to what is generally reported. Operation times are still considerable, however morbidity is minimal. The effect on urinary, defaecation and sexual dysfunction is less substantial with a significant number of de novo symptoms. Overall, sacral colpopexy improved quality of life and resulted in high patient satisfaction.

#### **References**

1.Kobashi KC, Gormley EA, Govier F, Hadley R, Luber K, Nitti V. Development of a validated quality of life assessment instrument for patients with pelvic organ prolapsed. Proceedings of the American Urological Association 9th Annual Meeting. J Urol 2000; 163: 76.