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LAPAROSCOPIC CERVICO- (CESA) AND VAGINO-SACROPEXY (VASA) AS TREATMENT FOR FEMALE PELVIC ORGAN PROLAPSE

Hypothesis / aims of study
The uterosacral ligaments play an important role in female pelvic organ prolapse of the apical vaginal end according to the Integral Theory (1). We now report on the clinical outcomes of 40 patients with pelvic organ prolapse (POP-Q stage II – IV) treated by laparoscopic cervico- and vagino-sacropexy. Thereby a bilateral augmentation of the uterosacral ligaments was performed.
The aim of the present study was to evaluate the effect of laparoscopic bilateral replacement of the uterosacral ligaments on female pelvic organ prolapse of the apical vaginal end.

Study design, materials and methods
40 patients with pelvic organ prolapse POP-Q stage II – IV of the apical vaginal end with or without mixed (MUI) and / or urgency urinary incontinence (UUI) symptoms were surgically treated by laparoscopic bilateral mesh augmentation of the uterosacral ligaments. Mean age of the patients was 67 years, their body weight ranged from 53 to 106 kilograms and their mean parity was 3.
Laparoscopy was performed under general anesthesia with the patient supine in 45 degrees head-down position and in lithotomy. Five laparoscopic ports were placed on the abdomen of the patient: one 11 mm umbilical port, two 5 mm suprapubic and above the navel ports and two 12 mm lateral ports. In patients with a cervico-sacropexy (CESA) a laparoscopic supracervical hysterectomy was performed as usual. For augmentation of the USL specially designed polyvinylidene fluoride (PVDF) tapes were used. Two PVDF tapes of the same length (8.8 cm length in CESA) were fixed at the cervix with four non-absorbable sutures. A common overholt clamp was used to pass the tapes through the peritoneal tunnel of the USL on both sides. Except a small peritoneal incision bilaterally over the sacrum at level of S1 the peritoneum between cervix and the sacrum was not dissected. Both tapes were tacked bilaterally to the sacrum at level of S1 using three 5 mm helical fasteners. The peritoneum at the cervix and sacrum was closed with absorbable sutures. In patients with a vagino-sacropexy (VASA) a vaginal manipulator was inserted to identify the vaginal end intraabdominal. The vesico-vaginal vault peritoneum was then incised and the bladder dissected distally for 1 cm. The PVDF tapes (9.3 cm in length because of missing cervix) were fixed with four non-absorbable sutures to the vaginal end. Fixation to the sacrum was identical to that in CESA patients.
Patients with urinary incontinence were identified according to a validated urinary incontinence questionnaire.
Clinical outcome was evaluated 4 months after surgery. Patients who were still suffering form urinary incontinence received an additional transobturator sling.
Data were analysed retrospectively.

Results
40 women treated with laparoscopic CESA and VASA. All patients suffered from pelvic organ prolapse of the apical vaginal end. After laparoscopy 100% of patients (n=40) were POP-Q stage 0 regarding their apical vaginal. In 10 out of 12 patients symptomatic cystoceles disappeared within 4 months after laparoscopy.
Before laparoscopy 37 patients suffered form urinary incontinence (2 patients had SUI and 35 patients suffered from MUI and UUI symptoms). After laparoscopy 55% of patients (n=22) were cured of their urinary incontinence symptoms. 15 patients remained urinary incontinent and a transobturator sling was recommended to these patients. So far, 8 patients were cured after additional transobturator sling. No major complications were observed.

Interpretation of results
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Concluding message
Laparoscopic bilateral replacement of the uterosacral ligaments by means of cervico- (CESA) and vagino-sacropexy (VASA) resolved female pelvic organ prolapse of the apical end in 100% of patients. In addition, involuntary urinary leakage accompanied by urgency could be cured in 75% of patients.

Disclosures
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