

LAPAROSCOPIC CERVICOSACROPEXY (LACESA) AND VAGINOSACROPEXY (LAVASA) FOR APICAL DESCENT OF THE UTERUS OR THE VAGINAL VAULT

Introduction

In the presence of genital prolapse with apical descent, sacrocolpopexy and vaginal sacrospinous fixation are current available procedures. They focus on restoring apical support unilaterally usually with a piece of polypropylene (PP) mesh of undefined length and unknown foreign body reaction.

However, these procedures are followed by high rates of urinary incontinence. It is hypothesized that this is caused by the non-physiological fixation of the vagina, especially parts of the anterior vaginal wall.

We developed a bilateral replacement of the uterosacral ligament (USLs) which are the physiological holding structures of the uterus and vagina (1, 2). The cervicosacropexy (CESA) and vaginosacropexy (VASA) are standardised abdominal procedure using a novel ligament replacement structure made of polyvinylidene fluoride (PVDF). These structures are constant in shape stability and show 40% less foreign body reaction compared to PP.

In this study we describe the standardized laparoscopic cervicosacropexy (LACESA) and vaginosacropexy (LAVASA) in the treatment of genital prolapse with apical descent.

Design

The laparoscopic cervicosacropexy (LACESA) and vaginosacropexy (LAVASA) procedures involves substituting both damaged uterosacral ligaments with purpose designed alloplastic PVDF-structures (polyvinylidene fluoride).

In the presence of the uterus a supracervical hysterectomy was performed. The anterior fixation area was centrally placed on the vault / cervical stump with 3 non-absorbable sutures.

After identification of the L5-S1, the peritoneum was horizontally blunt dissected (lengths of 1 cm) 2 cm caudal to the promontory at the lateral margin of the right and left vertebra. The anatomical path of each uterosacral ligament was tunnelled with a long Overholt-clamp (or either with a retropubic TVT trocar) and the ligament augmentation part of the PVDF-structure was placed. A fixation device was used for fixation to the prevertebral fascia of the sacrum at level S1.

Results

We report 74 women who underwent the laparoscopic CESA or VASA procedure for apical descent with a medium follow-up of 17 months. Mean age was 68 years (range 42 – 86) and a mean body weight of 75 kilograms. Preoperative, 55 women had POP-Q stage II, 14 women POP-Q stage III and 5 women POP-Q stage IV. Average operating time was 107 minutes, ranging from 47 to 129 minutes. 62 women had coexisting urinary incontinence. There were no intra-operative complications noted. Two immediate postoperative complications were noted: one patient had a bladder lesion and another patient had a relapse of prolapse.

Postoperative, all women had POP-Q stage 0. A 63% cure rate for urinary symptoms was noted.

Conclusion

The laparoscopic LACESA and LAVASA procedures yielded excellent anatomical correction of the prolapse. This approved the results we obtained with the abdominal CESA and VASA procedure as described recently (2). The ligament replacement structure used, is made of polyvinylidene fluoride (PVDF), which cause a substantially lower foreign body reaction and therefore minimizing the risk of shrinkage compared to comparable polypropylene (3). The unique design of the PVDF structure allows restoration of the uterosacral ligaments in a clearly defined way (in terms of constant structure of defined length and fixation sides), making the procedure standardised and reproducible.

References

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Disclosures

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