

ANTERIOR AND APICAL COMPARTMENT REPAIR WITH MESH: MINIMALLY INVASIVE SACROSPINOUS FIXATION SYSTEM

Introduction

Pelvic organ prolapse (POP) is a major health issue that may have significant impact on pelvic organ function and quality of life. A major problem for the POP repair has been reported to be a high recurrence rate (10-30%). To avoid this recurrence, synthetic meshes are now widely used in the POP repair. In this video we present a mesh with 6 fixation points and special tissue anchors to attach the mesh to the sacrospinous ligament (Surelift™ System. Neomedic International, Spain). With this technique we presume to decrease surgical failure and intra and postoperative complications.

Design

This video demonstrates the anterior vaginal repair. Surgical technique starts with hidrodisection of the anterior vaginal wall with 0.5% lignocaine and 0.25% epinephrine. A midline anterior wall incision from bladder neck up towards apex is made. The vaginal epithelium is dissected off of the bladder out laterally to the sidewalls and up to the ischial spines, and sacrospinous ligament is dissected bilaterally. Once the dissection is completed, two PEEK (polyether ether ketone) anchors with a prolene suture are placed using an applicator, 1,5- 2cm from the ischial spine, to avoid pudendus nerve or vessels injury. Anterior wall mesh (soft macroporous polypropylene mesh with 6 arms) is placed by attaching the apical arms to the sacrospinous ligament with the prolene suture. The other four arms are attached to the lateral pelvic sidewall with needles passed through the transobturator route. Four incisions are made in the groin for access to the transobturator space. The superior incisions are made in the genitofemoral crease. These are utilized to attach the distal arms of the mesh to the sidewall at the level of the bladder neck. The inferior incisions are made in the groin, 3cm inferior and 2cm lateral to the superior incisions. These incisions are used to pass the needles through the transobturator space and to attach the middle arms of the graft to the white line, approximately 1.5 to 2 cm distal to the ischial spine. Suspension of apical compartment (uterus or vaginal cuff) can be performed with the same mesh using the anchor prolene sutures. In these video a vaginal cuff suspension is done, using the anchor prolene sutures. and vaginal incision closed with vicryl suture.

Results

The procedure results in complete restoration of both Level I and Level II support in the anterior compartment and apex of the vagina

Patients completed to date have recovered quickly with minimal post-operative pain. No bladder or rectal injuries, post operative pain or other serious complications occur during surgery. The procedure offers the advantage of concomitant vault suspension with anterior or posterior compartment repair.

Conclusion

The surgery presented in this video demonstrates that Surelift™ innovative approach system seems to be effective, with no significant complications, for the POP repair.

With this minimally invasive sacrospinous fixation system we can concomitantly repair anterior/posterior and apical prolapse. Further studies with longer follow up period are needed.

References

1. Anatomic aspects of vaginal eversion after hyste- rectomy. De Lancey., Am J Obstet Gynecol 1992 166:1717
2. Transvaginal repair of anterior and posterior compartment prolapse with Atrium polypropylene mesh. 2004 Dwyer PL, O'Reilly BA. BJOG
3. Surgical management of pelvic organ prolapse in women: A short version Cochrane review Maher et al. Neurourol and Urodynamics 2008

Disclosures

Funding: none **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics Committee:** Comitè d'ètica Fundació Althaia, Manresa **Helsinki:** Yes **Informed Consent:** Yes