

Trans-vaginal Total Pelvic Floor Repair Using Customized Prolene Mesh: A Safe And Cost Effective Approach For High Grade Pelvic Organ Prolapse

Introduction

Pelvic organ prolapse and associated symptoms are a major health problem. For surgical correction of prolapse, various trans-vaginal mesh kits have been used with success but their high cost has been a major hindrance. We present a safe and cost effective method of trans-vaginal pelvic floor repair for the treatment of high grade prolapse using a customized prolene mesh.

Design

From June 2007 to June 2010, total 32 patients with POPQ grade III and IV underwent trans-vaginal repair of prolapse using the customized prolene mesh. Patients were evaluated for symptoms associated with prolapse pre and post operatively.

Vaginal hysterectomy is done first, followed by McCall's culdoplasty. An H shaped mesh is refashioned from 30x30 cm monofilament, macroporous prolene mesh. Both anterior mesh limbs are placed in the retropubic space at the level of proximal urethra with the help of suture passer needle introduced through two separate 1 cm suprapubic incisions. The posterior suture passer needle is introduced via separate stab incisions made 3 cm lateral and inferior to the anal verge on both sides. It traverses the ischio-rectal fossa and taken out 1 cm inferior to ischial spine piercing the levator ani muscle. With its help the posterior mesh limbs are placed in the ischio-rectal fossa. Vaginal flaps are closed without excision to ensure good capacity vagina

Results

Of the 32 patients, eighteen were Grade IV uterine prolapse, ten were grade III uterine prolapse and four had grade IV vault prolapse. Twenty eight patients underwent vaginal hysterectomy at the time of repair. All the patients had associated anterior and posterior prolapse of varying degree. Follow up ranged from 6 to 42 months. All patients had symptomatic relief after surgery. There were no intra-operative rectal or bladder injuries. Early complications were perineal pain (30), de novo urgency (4), vaginal discharge (3), vaginal wall hematoma (2) and failure to void (2). Two patients had vaginal erosion of mesh. One needed partial excision of mesh and another treated conservatively. Total cost of surgery to the patient was 500 USD.

Conclusion

Trans-vaginal total pelvic floor repair using a customized prolene mesh is safe and effective treatment for comprehensive repair of high grade pelvic organ prolapse. The use of this custom made prolene mesh makes the procedure very cost effective and affordable.

<i>Specify source of funding or grant</i>	None
<i>Is this a clinical trial?</i>	No
<i>What were the subjects in the study?</i>	NONE