

TWO YEAR OUTCOME OF A TIME-SPARING LAPAROSCOPIC SACROHYSTEROPEXY PROCEDURE USING Y-MESH GRAFT AND FIBRIN TISSUE ADHESIVE

Introduction

Sacrohysteropexy (abdominal or laparoscopic) was as effective as sacrocolpopexy and hysterectomy in anatomical outcomes, however, the latter was associated with higher rates of complications. Laparoscopic approach was attractive because of its minimal invasiveness; however, longer operating time was required. We aimed to evaluate surgical results of a time-sparing laparoscopic hysteropexy (LSH) procedure in this study.

Design

This was a prospective observational study (clinical audit) conducted at a tertiary referral hospital in Taiwan. Thirty-four women with POP stages ≥ 2 , who underwent LSH using Y-mesh grafts (ALYTE™) between June 2012 and December 2013, were studied. For the detailed surgical techniques of LSH were demonstrated in the video. In brief, anterior lip and Y mesh would be cut into two arms, and be brought through bilateral broad ligaments through the windows created in advanced. The mesh would be sutured over anterior/posterior cervix, vaginal wall, and pre-sacrum region using nonabsorbable sutures. In half of the cases, Fibrin sealant (TISSEEL™) spray was applied for mesh attachment over anterior and posterior vaginal wall for fasten the procedures and decrease suturing (six in Fibrin sealant group vs. 10 stitches in Stitch-only group). A comparative analysis of surgical result at median 2 years follow-up between groups was performed.

Results

Compared to stitch only group, the fibrin sealant group was characterized by a significantly shorter operating time (247.0 vs. 292.9 minutes, $P=0.04$). Other demographic data and peri-operative outcomes were not significantly different between groups. Anatomic outcome was also comparable with success (POP stage 0 or 1) rates of 76.5% (13/17) in both groups. LSH is efficacious in central compartment repair, with no patients experiencing apical recurrences. However, most of surgical failures (7/8) occurred in the anterior compartment. After multivariate regression analysis, we found that "cystocele as the dominant prolapse before operation" affects the recurrence significantly ($p=0.019$; odds ratio=8.04).

No serious complications were noted in this study, and there was no vaginal mesh extrusion during follow-up period. Statistically significant improvement was noted in various pelvic symptoms and quality-of-life index in both groups.

Conclusion

A time-sparing LSH procedure using Y-mesh grafts and fibrin sealant spray seemed to be safe and might shorten the surgical time to prolapse repair, with satisfying anatomic and functional outcomes at median 24 months follow-up. Additional paravaginal repair for a dominant cystocele concomitantly with LSH using Y-mesh grafts might further improve surgical outcomes.

Disclosures

Funding: non **Clinical Trial:** Yes **Registration Number:** IRB TCVGH No. CE14208 **RCT:** No **Subjects:** HUMAN **Ethics Committee:** Department of Medical Education and Research, VGHTC, Taiwan **Helsinki:** Yes **Informed Consent:** Yes