

## SHORT-TERM OUTCOME ANALYSIS OF TOTAL PELVIC RECONSTRUCTION WITH MESH

### Hypothesis / aims of study

To assess the effects of prolene mesh on urinary, bowel and sexual function in a selected group of patients with genital prolapse associated with urinary incontinence.

### Study design, materials and methods

This study is a prospective observational case series of 26 consecutive women with genital prolapse and urinary incontinence who underwent a transvaginal procedure between March 2004 and March 2005. All patients had the association of cystocele and enterocele together with urodynamically diagnoses urinary incontinence (McGuire type II and III). The mesh used was a polypropilene mesh (PROLENE, Ethicon, New York, USA), combined with the use of IVS tunneller (Tyco Healthcare). All but 3 patients were submitted to anterior IVS (midline intravaginal slingplasty) and posterior IVS (infracoccygeal sacropexy), as well as a subvesical 4-point mesh insertion for treatment of the cystocele and a pre-rectal mesh for treatment of enterocele. All mesh insertion was performed in a tension free fashion. We did not perform any suture on the perineal membrane and no excess vaginal skin was excised in order not to reduce vaginal elasticity or increase vaginal erosion rate. Associated rectocele repair was corrected by mirrorraphy. Associated hysterectomy was not performed unless intrinsic uterine disease warranted the forementioned procedure.

Mean age was 63 years (49-81). 23 patients were post-menopausal and 16 had normal preoperative sexual activity. 12 patients had previous operation for genital prolapse, hysterectomy or urinary incontinence. Using POP-Q system, pre-operatively 12 women had grade II, 10 had grade III and 4 had grade IV cystocele. Mean Ba point was 2 +- 1 cm.

### Results

Mean operative time was 70 minutes. No operative complications occurred. Mean hospitalization stay was 2 days. Mean follow-up was 6 months. All patients returned to follow-up. At follow-up, 18 patients out of 26 were cured (72%) of the urinary incontinence symptom and 6 were improved (20%). There were no postoperative infections of the mesh. There was one case of vaginal erosion (posterior), treated and cured conservatively (oestrogenic therapy). 14 women out of 16 returned to postoperative sexual activity, in whom dyspareunia was reported in 2 cases (none significant). Urgency and disuria was seen in 5 patients. Urinary retention occurred in 2 patients and was treated conservatively with bladder catheterization and the other patient had a transection of one side of the sling performed, so regaining normal voiding. Constipation was present in 20 of the patients preoperatively and improved in 17 (85%)

### Interpretation of results

There has been a great controversy regarding the use of prolene mesh in genital prolapse surgery, as well as some parts of integral theory concepts and procedures proposed by Petrus. A recent article by MILANI from Italy concluded that although good anatomical results were found, increased morbidity either due to vaginal erosions or dyspareunia was a major drawback and that the use of mesh should be avoided. Our results as well as other preliminary reports contradict the opinion that mesh should be abolished in these cases. Vaginal erosion is a complication that can be avoided by the use of certain technical principles (such as leaving the excess vaginal tissue) and that can be treated conservatively if diagnosed early. Improvement in constipation symptoms has also been mentioned by others authors, probably due to repositioning the vaginal axis and attachment to levator plate, and is a positive outcome of this procedure. In patients with preoperative sexual activity, when dyspareunia was found it was usually mild and frequently taken care of by use of vaginal lubricants and estrogenic therapy.

### Concluding message

The use of total vaginal reconstruction with mesh for the therapy of triple compartment prolapse associated with urinary incontinence is feasible and efficacious. It should be performed regarding technical principles usually practiced when mesh is used in other regions of the body. Results are promising but still more late results (5 years followup) are necessary to secure the use of mesh in the vaginal milieu.