628

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THE USE OF MESH (PELVICOL ®) FOR RECURRENT OR SEVERE ANTERIOR DEFECTS.

Hypothesis / aims of study

Anterior repair is a common operation but is, however often associated with recurrence. When recurrence occurs the operation is complicated due to disappearance of the pubocervical fascie. In these patients it is not possible to duplicate the fascia, and therefore other attempts to restore normal vaginal anatomy are required. The insertion of a mesh may be an option. A mesh may also be useful in patients with total prolapse where the defect in the pubocervical fascia is large.

Until now most authors have used a prolene mesh in patients with recurrent or severe prolapse. However, this type of mesh often causes erosions. Whether the erosions occur because of the mesh type used, insufficient surgery or lack of interposed fascia is not known. Another cause of erosions may be related to the adjustment of the mesh during surgery thereby leaving the edges prickling. It should be emphasised, that prolene mesh is difficult to remove due to the growth of connective tissue into the mesh. Furthermore, the mesh has to be removed totally, otherwise new erosion occurs.

During the recent years other mesh types have been available, including bio-mesh. These mesh types may not cause erosions, but are absorbed within weeks or months. Whether this is followed by recurrence of the prolapse is not known.

The aim of the present study was therefore to evaluate whether bio-mesh (Pelvicol®) is useful in patients with recurrent or large cystocele.

Study design, materials and methods

The study comprised of 31 patients with a mean age of 62 $\pm$ 12yr (SD) and a BMI of 27 + 5. Twenty-six were postmenopausal and 15 of these on HRT. Only six were smoking. Seventeen have had a hysterectomy due to benign reasons. Twenty-one of the patients had undergone an anterior prolapse repair and in average all patients had undergone one to three operations for prolapse. All patients had a cystocele $\geq$grade 3 (ICS classification). Two patients were suffering from stress incontinence, 6 of urge and 10 of mixed incontinence. All patients were evaluated after a 6 months observation period.

The surgical techniques involved a midline incision above the cystocele and then blunt or sharp dissection when necessary into the retropubic space bilaterally under the pubic ramus. Six to eight absorbable 3-0 sutures were placed in the fascia above the obturator internus muscle or in the arcus tendineus. A 7 x 3 inch Pelvicol® was used in each case and tied to the stitches laterally. Medially the Pelvicol® was fixed to the vaginal fascia to achieve support at the bladder (Figure 1 -3). All patients received a single preoperative dose of antibiotics.

Results

All patients had a mesh inserted. Furthermore, 15 patients had a rectocele repair, 12 patients an enterocele repair and a vaginal hysterectomy was performed in four patients. Two patients had a bleeding of more than 1000 ml, but did not receive blood transfusion. Preoperatively the residual bladder volume was median 66 ml., range 4-500 ml, but decreased to 41 ml the day after the operation (range 0-135 ml). Most of the patients were dismissed the day after the operation except four patients who stayed 4-8 days.

At the 6 months follow-up all patients had a normal vaginal length, and no sign of prolapse except four patients (13%), who had a recurrent grade 2 cystocele. Three of these had all undergone a previous anterior repair and one patient had severe prolapse (figure 1). All four patients had a lateral defect indicating a tearing off laterally. Three of the patients accepted further follow-up, whereas one wanted a new operation.

Only two patients had residual urine at follow-up compared to 11 prior to the operation ($p<0.01$). The number of patients with incontinence was reduced significantly from 18 to 5 after the operation ($p<0.001$).

Concluding message

Our preliminary results suggest that Pelvicol® mesh can be used for treatment of recurrent or severe anterior vaginal prolapse. The operation technique is easy to perform and the patients may be dismissed the day after the operation. The recurrence rate seems acceptable taken the severity of prolapse into account. Most patients improved regarding urinary residual volume and symptoms.

Figure 1

The figure demonstrates a patient with total prolapse including severe anterior defect in the pubocervical fascia

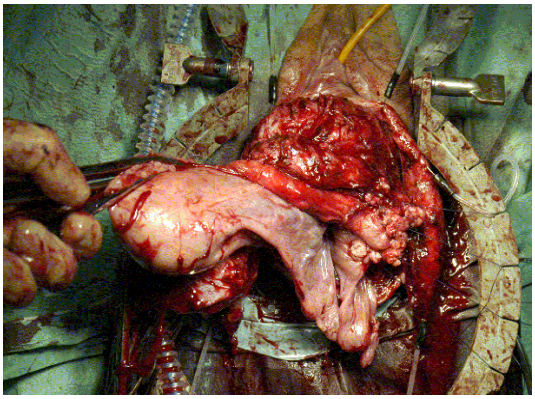

Figure 2

The figure demonstrates the fixation of the Pelvicol® mesh

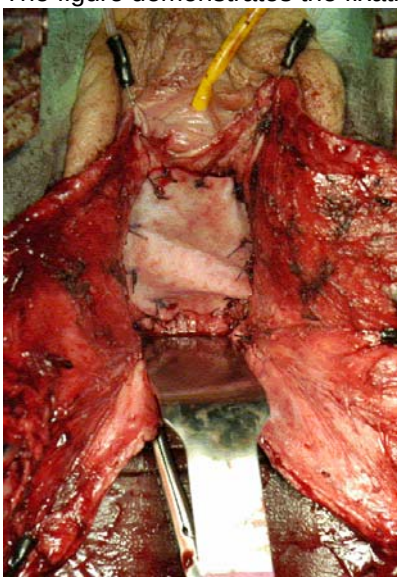

Figure 3

The figure demonstrates the end result including a normal vaginal length