

## **POSTERIOR VAGINAL REPAIR WITH PELVICOL™ GRAFT IN SEVERE AND RECURRENT ENTERO-RECTOCOELE**

### **Hypothesis / aims of study**

To report initial experience with Pelvicol™ porcine graft to perform a site specific fascial defect repair of a severe or recurrent rectocele or enterorectocele in conjunction with a Posterior Intravaginal Sling.

### **Study design, materials and methods**

Retrospective chart review was performed of 24 consecutive patients who underwent a posterior vaginal wall fascial defect repair using a biological implant in calendar year 2002. A Pelvicol™ graft was used to reconstruct the rectovaginal septum and the vaginal vault. Surgical technique involved an extensive lateral dissection of the levator muscle on each side, the cervix or sacrospinous ligaments caudally and the perineal body inferiorly. Enterococele repair was achieved in these patients by attaching the Pelvicol™ Graft to the levator muscle just below and medial to the ischial spine on each side with a Posterior Intravaginal Sling (Tyco, USA). The Pelvicol™ graft was also attached laterally on each side to the levator muscle, superiorly to the cervix where present and inferiorly to the perineal body using delayed absorbable sutures.

Pelvicol™ graft was not readily available in Australia in 2002 and each implantation required individual patient approval from the Australian Therapeutic Goods Authority. As a result Pelvicol™ graft was reserved for those patients who had a preference for a biological implant or where there was a relative contraindication to the use of a polypropylene mesh due to presumed poor quality vaginal epithelium or connective tissues.

POP-Q evaluation of the pelvic floor was made preoperatively and postoperatively at 1, 3 and 12 month intervals. Subjective assessment of general health, gynaecological health and sexual function were made utilizing validated questionnaires. Demographic details, operative data, intraoperative and postoperative complications were recorded. Ethics committee approval was granted to perform a retrospective audit of data collected prospectively as part of the normal quality assurance program. Patient satisfaction was recorded on a visual analogue scale.

### **Results**

Patients were followed up for an average of 19.4 months (Median 20.5). One patient was lost to follow up after 6 months. In the remaining 23 patients the range of follow up was 14-25 months. Average patient age was 64 years (Median 63) with a range (39 – 84) and average parity was 2 (range 1 – 4). 16 patients (67%) had undergone a hysterectomy and 21 patients (87%) had undergone a previous vaginal repair procedure. All but 2 patients were menopausal and 4 patients (17%) were using systemic hormone replacement therapy. 16 patients (67%) were sexually active both before and after surgery. Dyspareunia was reported in 43% of sexually active patients preoperatively and in only 19% following surgery.

Surgical cure was assessed objectively using the POPQ system by recording changes in Point C and Point Bp. All but one patient in the study reported an improvement in POPQ assessment and complete resolution of prolapse symptoms. 8 patients out of 11 patients with preoperative constipation reported an improvement in bowel function. No patients reported the development of denovo faecal incontinence. Patient satisfaction was closely linked to resolution of coexisting functional symptoms in particular urinary urgency and stress incontinence. Urgency was present in 15 patients (62%) preoperatively. It was cured in 10 patients and improved in 2 patients following the procedure. No patients reported the development of denovo urinary urgency. A number of these patients underwent some form of concurrent anterior repair.

One patient developed a small erosion of Posterior IVS tape which was partially removed surgically. This same patient had already suffered breakdown and failure of the repair as a result of severe constipation. One patient developed a Pelvicol™ graft erosion in the posterior vaginal wall with granulation tissue formation. She went on to make a full recovery with

subsequent healing and with a good functional and anatomical result. None of the Pelvicol™ grafts needed to be removed.

**Interpretation of results**

Conclusions: Pelvicol™ graft is an excellent means of restoring the integrity of the posterior vaginal compartment fascial layer and helping to improve bladder, bowel and sexual function.

**Concluding message**

Pelvicol™ graft is especially useful in those patients where poor tissues make the use of a synthetic graft in close proximity to the rectum inappropriate. Subjective assessment of bladder, bowel and sexual function is more important in helping to determine patient satisfaction rather than objective technical success in curing the prolapse.