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A SUSPENDED MESH REPAIR FOR SEVERE AND RECURRENT CYSTOCOELE. OBJECTIVE AND FUNCTIONAL OUTCOME ASSESSMENT OF 98 PATIENTS USING EITHER VIPRO2™ OR SURGIPRO™ SPMM66 MESH.

Hypothesis / aims of study
A retrospective case review is performed of 98 patients with severe or recurrent cystocoele who underwent a suspended mesh repair using either Surgipro™ SPMM66 (Tyco Healthcare, USA) or Vipro2™ (Ethicon, USA) mesh. Patients were assessed prospectively for both objective and functional outcomes. Surgical complications were also documented.
Study design, materials and methods
Between January 2002 and December 2003, 98 patients with severe or recurrent cystocoele underwent a suspended mesh repair using a standardized technique. All operations were performed by the same surgeon. The mesh prosthesis was attached to pelvic side wall on each side to restore the normal anterior, lateral and posterior attachments of the pubocervical fascia. An Endostitch™ device (Tyco Healthcare, USA) was used to attach the mesh on each side to the sacrospinous ligaments, close to the sacrum, and to the Arcus Tendineous Fascia Pelvis (ATFP), 1-2 cm anterior to the ischial spine with non absorbable polyester sutures. Careful attention was paid to the placement of mesh adjacent to the bladder neck so that there was no compromise of the proximal urethra in the area known as the Zone of Critical Elasticity. Rather the mesh was attached laterally at this point with extensions of the mesh to the pubic ramus and obturator foramen on each side.

Clinical assessment included POP-Q evaluation of the pelvic floor and was performed preoperatively and postoperatively at 1, 3 and 12 month intervals. Subjective assessment of general health, gynaecological health, and sexual function was made using 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 an ongoing quality assurance program. Patient satisfaction was recorded using a visual analogue scale. Success of cystocoele repair was defined as an improvement of POPQ Point Ba > 2cm or a patient satisfaction VAS > 7 (Range 1-10).
Results
Patients were followed up for an average of 18 months. 5 patients were lost to follow up after 6 months. In the remaining patients the range of follow up was 12-26 months. Patient ages ranged from 32-81. The average age of the patients was 65 years. Previous history is summarised in Table 1.

Table 1:	Surgipro Mesh n=53	Vipro2 mesh n=45
HRT use	11%	22%
Hysterectomy	64%	67%
Previous repair	86%	73%
Previous sling/Burch	15%	26%

All patients had a symptomatic recurrent or severe cystocele. The surgical procedure took an average time of 64 minutes. Postoperative hospital stay was an average 5 days.

Table 2: Success	Surgipro Mesh n=53	Vipro2 Mesh n=45
Change Ba>2cm	86%	89%
VAS>7	81%	93%

Table 3: Outcomes	Surgipro Mesh n=53	Vipro2 Mesh n=45

	PreOp	PostOp	PreOp	Postop
Urgency	41%	17%	60%	16%
Sexual activity	49%	49%	55%	57%
Dyspareunia	35%	15%	24%	12%
Constipation	25%	13%	22%	13%

Table 4: Complications	Surgipro Mesh n=53	Vipro2 Mesh n=45
Mesh Erosion	8%	3%
Deep Venous thrombosis	2%	0
Temperature	9%	4%
Blood transfusion	7%	2%
Temp Void Difficulty	7%	11%
Postoperative pain	17%	15%

Interpretation of results

This technique has proven successful in treating severe and recurrent cystocoele with low levels of complications and a high level of patient satisfaction. The technique is also associated with reduced dyspareunia and improved sexual function irrespective of which mesh is used.

Outcome data confirms that the lower density composite mesh (Vipro2) is associated with a lower level of complications and better surgical outcomes than Surgipro SPMM66. The reduction in morbidity seen with Vipro2 probably represents a gradual improvement in surgical technique as this was not a controlled trial and most of the Vipro2 cases were performed in the second half of the study period. Improved protocols and clinical pathways have also been developed in an effort to reduce the incidence of objective failure due to inappropriate postoperative activity or constipation and to ensure all patients have comprehensive prophylaxis against thromboembolic events.

Concluding message

Analysis of this data has led to further refinements of the standardized technique and introduction of a wide weave monofilament polypropylene mesh. Further studies are now underway to evaluate newer mesh types using this technique.