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SEXUALITY AND QUALITY OF LIFE IN WOMEN WITH GENITAL PROLAPSE: IMPACT OF VAGINAL SURGERY WITH LOW-WEIGHT PROTECTED POLYPROPYLENE MESH.

Hypothesis / aims of study

A RCT has shown that results of prolapse repair via vaginal approach could be improved when a polypropylene mesh is used as tissue support (1). However, non protected heavy-weight meshes were associated with a high rate of local complications such as vaginal erosions and dyspareunia (2). The aim of this study was to evaluate the functional results of an innovative low-weight polypropylene mesh protected by an absorbable hydrophilic film for genital prolapse repair by vaginal route.

Study design, materials and methods

Two-hundred and thirty consecutive patients suffering for genital prolapse were prospectively included in a multicentre study from March 2003 to June 2004 in 13 centres. All patients were operated via the vaginal route with a specially designed mesh: Pelvitex™ * (Bard). Pelvitex is a low-weight (38g/m²) and highly porous (average porosity: 89%, pores over 1.5mm) polypropylene monofilament mesh, protected by with a hydrophilic film composed of atelocollagen, polyethylene glycol and glycerol. The absorbable coating protects delicate pelvic viscera from the risk of acute inflammation during the healing's inflammatory peak. Anterior, posterior and anterior/posterior repair with the mesh were performed in 46.5%, 9.2% and 44.3%, respectively. Vaginal hysterectomy and posterior repair with no mesh (sacrospinous suspension, fascial repair or levator myorraphy) were associated in 34% and 47.4%, respectively. Prolapse grading was performed using the POP-Q system. Symptoms and impact on quality of life were evaluated pre and postoperatively using the validated PFDI and PFIQ questionnaires (3). In sexually active patients, we have also evaluated the rate of dyspareunia.

Among the 230 patients, 151 have correctly filled both pre and post-operative PFDI and PFIQ questionnaires, in whom 90 were sexually active and 61 had no more sexual intercourse. We had focused the present analysis on the sub-group of the 90 sexually active patients (study group), and have compared impact on symptoms and quality of life with the sub-group of 61 patients with no more sexual intercourse (control group). In the study group (n = 90), mean age was 59.9 years old (37-77). Mean parity was 2.5 (0-8). Twenty-six patients were previously operated for hysterectomy (28.9%) and 15 for prolapse repair (16.7%). Preoperatively, 7 women had dyspareunia (7.8%). Mean follow-up was 11 ± 3 months (4 to 19). Scores on symptoms and quality of life were compared using the Mann-Withney test.

* *Manufactured by Sofradim – Distributed in France as Ugytex™*

Results

Patients characteristics were similar in both groups, except for mean age (59.9 vs 69.9 years old in the control group). In both groups, improvement on urinary, colo-recto-anal and pelvic organ prolapse symptoms and quality of life was highly significant (Tables 1, 2, 3). Furthermore, we have found no significant difference on symptoms and quality of life between sexually active patients and others. Among the seven patients with preoperative dyspareunia, five had improvement of sexual intercourse and two were unchanged. On 69/83 patients who had no preoperative dyspareunia and who return to postoperative sexual activity, 10 de novo dyspareunia were reported (14.5%). However, when prolapse repair were performed only with the mesh, the rate of de novo dyspareunia was 3/40 (7.5%), and when a concomitant posterior repair was performed, the rate increased to 7/29 (24.1%). The rate of de novo dyspareunia was similar in patients with or without a concomitant vaginal hysterectomy. In the overall population, anatomical success rates for cystocele and rectocele were 196/206 (95.1%) and 121/123 (98.4%), respectively.

Table 1. Urinary results on symptoms (UDI) and quality of life (UIQ).

Sub-groups	Pre-op UDI /300	Post-op UDI /300	Improvement (*p*)	Pre-op UIQ /300	Post-op UIQ /300	Improvement (*p*)
Sexually Active n = 90	89.2	22.7	74.6% *(<.0001)*	85.2	18.2	78.6% *(<.0001)*
Control Group* n = 61	81.3	14.5	82.1% *(<.0001)*	83.1	16.2	80.5% *(<.0001)*
*p**	*0.421*	*0.063*		*0.780*	*0.733*	

Table 2. Colo-recto-anal results on symptoms (CRADI) and quality of life (CRAIQ).

Sub-groups	Pre-op CRADI /400	Post-op CRADI /400	Improvement (*p*)	Pre-op CRAIQ /300	Post-op CRAIQ /300	Improvement (*p*)
Sexually Active n = 90	88.2	35.6	59.6% *(<.0001)*	34.6	11.4	67.1% *(<.0001)*
Control Group* n = 61	74.2	22.2	70.1% *(<.0001)*	44.4	5.0	88.7% *(<.0001)*
*p**	*0.274*	*0.085*		*0.463*	*0.167*	

Table 3. Pelvic organ prolapse results on symptoms (POPDI) and quality of life (POPIQ).

Sub-groups	Pre-op POPDI /300	Post-op POPDI /300	Improvement (*p*)	Pre-op POPIQ /300	Post-op POPIQ /300	Improvement (*p*)
Sexually Active n = 90	113.2	33.0	70.8% *(<.0001)*	47.3	7.3	84.6% *(<.0001)*
Control Group* n = 61	113.4	21.8	80.8% *(<.0001)*	59.8	4.4	92.5% *(<.0001)*
*p**	*0.986*	*0.098*		*0.344*	*0.402*	

Interpretation of results

Vaginal surgery for genital prolapse repair using a low-weight protected polypropylene mesh has a highly significant favourable impact on urinary, colo-recto-anal and pelvic organ prolapse symptoms and quality of life, in both sexually active and others patients. The rate of de novo dyspareunia related to the mesh (7.5%) was lower than the rate of de novo dyspareunia secondary to other surgical procedures.

Concluding message

The use of a low-weight polypropylene mesh protected by an absorbable hydrophilic film seems to improve functional and sexual results of vaginal surgery for genital prolapse repair, while maintaining an efficient anatomical support.

References

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