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Fatton B[1], Lagrange E[2], Jacquetin B[2]
1. *Department of Gynecology. University Hospital of Clermont-Ferrand. France,* ***2.*** *Department of Gynecology. University Hospital of Clermont-Ferrand. France*

SEXUAL OUTCOME AFTER TRANSVAGINAL REPAIR OF PELVIC ORGAN PROLAPSE (POP) WITH AND WITHOUT MESH: A PROSPECTIVE STUDY OF 323 PATIENTS.

Hypothesis / aims of study

Transvaginal mesh repair of POP is thought to result in postoperative sexual disorders and nowadays, most surgeons are still reluctant to use mesh repair in sexually active women. The aim of this study is to assess and compare sexual outcome after transvaginal repair of POP with and without mesh.

Study design, materials and methods

All the patients operated on for POP in our department between December 2006 and March 2009, were invited to participate. Six patients were excluded because of missing sexual data (4), lost for follow-up (1) and death within the year following surgery (1). Overall 323 patients were included. All the patients received information about risks and benefits of surgical management of POP specifically when using transvaginal meshes. Consent was obtained from all the patients to make use of pre and postoperative sexual information.

One hundred and thirty eight patients (42.7%) received a mesh repair including anterior Prolift in 24.6%, posterior Prolift in 5.8%, total Prolift (in patients with concomitant or previous hysterectomy) in 28.3% and combined anterior and posterior Prolift (with uterine preservation) in 41.3%. Depending on the type of mesh repair, patients in the mesh group underwent concomitant procedures such as hysterectomy (9.4%), perineorraphy (8.6%), levator ani plasty (2.1%) sacrospinous fixation (7.9%) and suburethral sling (58%). In the mesh group, 31.2% of subjects had stage II POP whereas 59.4% had stage III and 9.4% stage IV. One hundred and eighty five patients (57.3%) received a traditional repair. At surgery, patients received different procedures including hysterectomy (36.5%), sacrospinous fixation (40.3%), anterior colporraphy, posterior fascial plication (45.2%), perineorraphy (37.2%) and suburethral sling (52%). In this group, 49.5% of patients had a stage II POP, 46% stage III and 4.5% stage III. All the patients completed a preoperative detailed sexual questionnaire including PISQ 12 and specific items reported below.

Postoperatively patients were evaluated 6 weeks, 3-6 months and one year after surgery and then yearly. At the 6 months and/or one year follow-up visit patients were invited to complete a sexual questionnaire including PISQ 12 and some specific items about sexual function and possible changes after surgery. Patients were asked to complete the sentence “compared to before surgery, do you feel your sexuality is ...” using a scale from “very much worse” to “very much better”. Patients were also asked “Regarding your sexual outcome, if you had to do it all over again, would you choose surgical treatment ?”. In addition each patient was instructed to grade, pre and postoperatively, the quality of her sexuality using a visual analog scale from 0 (very bad) to 10 (excellent). Dyspareunia was defined as a response of “sometimes”, “usually” or “always” to the question 5 from the PISQ 12 “Do you feel pain during intercourse?”.

Results

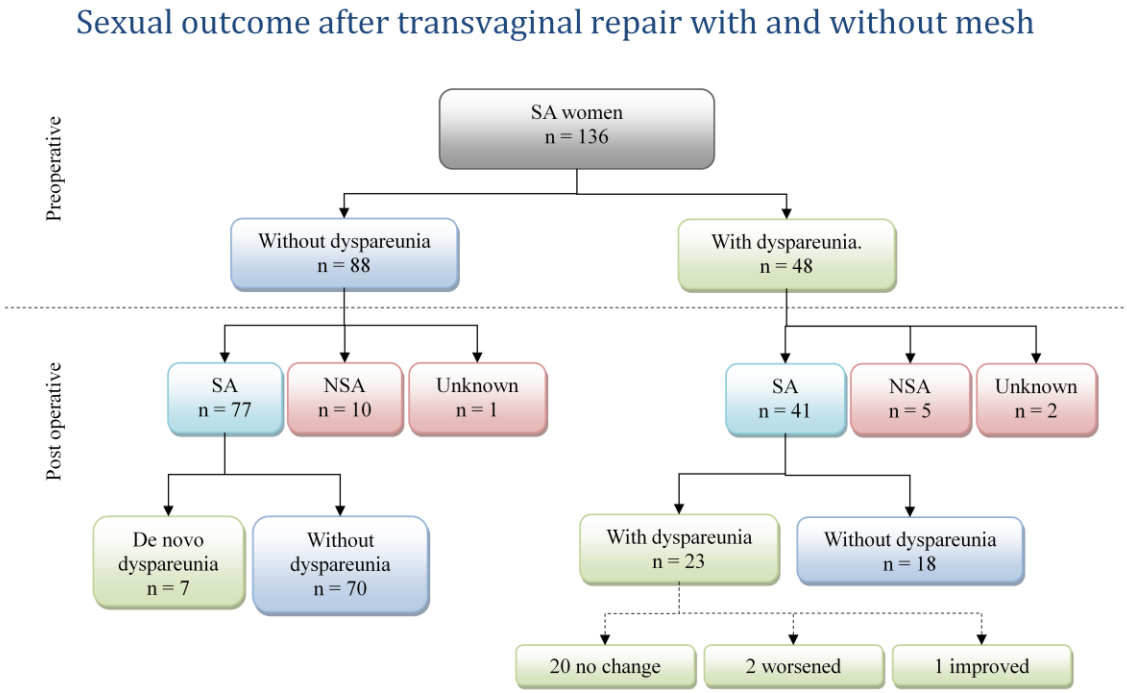
Overall 136l women (42%) were sexually active at baseline, 79 women (42.7%) in the no mesh group and 57 women (41.3%) in the mesh group (difference no statistically significant). Overall 35.3% of sexually active women complained of dyspareunia preoperatively. Global PISQ 12 score was 35 +/- 5.4 before surgery (36.1 +/- 5 in the no mesh group, 34.3 +/- 6.1 in the mesh group

After surgery 118 women remained sexually active (figure1). Postoperative dyspareunia rate was 25.4%. Seven patients complained of de novo dyspareunia (7/88=7.9%), one patient (1/49 = 2%) in the no mesh group and 6 patients (6/39=15.4%) in the mesh group ($p = 0.04$). Physical examination was performed in all patients who reported de novo dyspareunia in order to identify a trigger zone or to diagnose any abnormal findings (shrinkage, exposure, tight sutures..) susceptible to explain pain during coïtus. Among patients complaining of de novo dyspareunia in the mesh group, vaginal palpation suggested that dyspareunia was directly related to the mesh in 4 patients, whereas 2 patients reported pain during insertion only because of a too tight perineorraphy Global postoperative PISQ score was 36.7 +/- 5.4 (37.6 +/- 5.5 in the no mesh group and 35.7 +/- 5.2 in the mesh group). When comparing to the preoperative scores, global PISQ score and PISQ score in the non mesh group significantly improved after surgery ($p =0.0047$, $p=0.029$ respectively), The improvement of the PISQ score in the mesh group remained non statistically significant ($p=0.07$).

Interpretation of results

Despite a significant increased risk of de novo dyspareunia in the mesh group, the true rate of de novo dyspareunia directly related to mesh was only 10.2% (4/39) in this series. These results are similar to those previously published after vaginal repair using polypropylene mesh [1]. In addition there are similar to the 14.5% de novo dyspareunia rate reported after sacrocolpopexie [1]. Nevertheless these results are very important to consider before choosing a transvaginal mesh repair in young sexually women. The main limitation of this study is the number of sexually active women at baseline (42% of the complete sample) which is similar to the results previously reported but appears low when considering the complexity of human sexuality. As previously published, the main predictive factor of postoperative sexual wellbeing is the quality of the preoperative sexual function [2].

Figure 1



Global dyspareunia rate➔ 35,3% à 25,4%

Concluding message

Only a few cases of postoperative dyspareunia were attributable to surgery. The de novo dyspareunia rate is this series was 7.9% with a significant increased risk in the mesh group (15.9%) compared to the no mesh group (2%).When focusing on these cases and when dyspareunia was directly related to the mesh, the main explanation seemed to be excessive mesh shrinkage. These results need to be confirmed by further studies with specific assessment using appropriate tools such as ultrasonography [3] and validated questionnaires and a standardized mesh complications classification including mesh retraction evaluation.

References

1. Lowman JK, Jones LA, Woodman PJ, Hale DS. Does Prolift system cause dyspareunia? Am J Obstet Gynecol. 2008 Dec;199(6):707.e1-6.
2. Gauruder-Burmester A, Koutouzidou P, Tunn R. Effect of vaginal polypropylene mesh implants on sexual function. Eur J Obstet Gynecol Reprod Biol. 2009 Jan;142(1):76-80.
3. Velemir L, Amblard J, Fatton B, Savary D, Jacquetin B. Transvaginal mesh repair of anterior and posterior vaginal wall prolapse: a clinical and ultrasonographic study. Ultrasound Obstet Gynecol. 2010 Mar 5. Epub ahead of print

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Is this a clinical trial?	**Yes**
Is this study registered in a public clinical trials registry?	**No**
Is this a Randomised Controlled Trial (RCT)?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**No**
This study did not require eithics committee approval because	**This study specifically address the sexual function after vaginal repair of pelvic organ prolapse. All the patients were operated on after complete information. They received surgical procedures according to the guidelines published by the french health authorities regarding the use of synthetic meshes. All the women gave their consent to be included and to complete questionnaires. It is the reason why we didn't seek the validation from the ethics committee before conducting this study**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**