LONG-TERM FOLLOW-UP OF ANTERIOR VAGINAL REPAIR: A COMPARISON AMONG COLPORRAPHY, COLPORRAPHY WITH REINFORCEMENT BY XENOGRAFT, AND MESH.

Hypothesis / aims of study
The aim of our study was to assess the long-term efficacy, the subjective and objective outcomes, and the complications in patients treated for pelvic organ prolapse (POP) with transvaginal anterior colporraphy alone, with transvaginal anterior colporraphy and the reinforcement by porcine Xenograft (Pelvisoft® Biomesh), and with transvaginal anterior repair with the use of a polypropylene mesh.

Study design, materials and methods
A retrospective study was performed at a single centre. A total of 123 women underwent cystocele repair between 2000 and 2015. Follow-up was completed in 109 patients aged 46-80 years: 42 patients underwent a transvaginal anterior colporraphy alone (TAC), 19 patients underwent a transvaginal anterior colporraphy with an associated reinforcement by the use of Pelvisoft® Xenograft (TAC-P), and 48 patients underwent an anterior repair with a polypropylene mesh (TAM). Some patients had an associated surgical procedure. The characteristics of patients are listed in Table 1. Mean follow-up was 87.7 months (12-184).

Variables | TAC (n=42) | TAC-P (n=19) | TAM (n=48)
--- | --- | --- | ---
Age, yrs (mean ± sd) | 65.4 (9.78) | 67.1 (6.6) | 64.5 (8.6)
Follow-up, months (mean ± sd) | 101.5 (44.9) | 85.4 (29.5) | 76.7 (61.2)
POP grade, n (%) | | | |
II° | 9 (21.4) | - | 13 (27)
III° | 30 (71.4) | 14 (73.6) | 31 (64.6)
IV° | 3 (7.2) | 5 (26.4) | 4 (8.4)
Associated procedures, n | | | |
Hysterectomy | 14 | 6 | -
Sacrospinous suspension | 6 | 3 | -
Posterior repair | 7 | 2 | 4
TVT/TVT-O | 18 | 9 | 9
Other procedures | 3 | 2 | 3

Table 1: Patients characteristics.

Results
In all the surgical techniques used the results of PGI-I questionnaire showed a general perceived benefit of treatment as well as the results of PPBC questionnaire indicated an improvement from the previous bladder condition. The personal patient’s satisfaction rate was higher in the TAC-P group. In all groups most of the interviewed women would confirm the same surgical choice fixed at the time of the counseling before surgery. The best anatomical outcomes have been achieved with TAC-P, followed by TAM and finally by TAC with no statistically significant correlation. Data showed a higher rate of complications in the TAM group with statistically significant difference. All the results are listed in table 2, and the complications are reported in table 3.
### Outcomes

<table>
<thead>
<tr>
<th></th>
<th>TAC (n=42)</th>
<th>TAC-P (n=19)</th>
<th>TAM (n=48)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PGI-I</td>
<td>1.42 (1-5)</td>
<td>1.21 (1-5)</td>
<td>1.56 (1-7)</td>
<td>0.0789</td>
</tr>
<tr>
<td>PPBC</td>
<td>1.38 (1-5)</td>
<td>1.15 (1-4)</td>
<td>1.45 (1-5)</td>
<td>0.1253</td>
</tr>
<tr>
<td>Personal patient satisfaction, n (%)</td>
<td>40 (95.2)</td>
<td>19 (100)</td>
<td>40 (83.3)</td>
<td>0.370</td>
</tr>
<tr>
<td>Pts. that would repeat surgery, n (%)</td>
<td>39 (92.8)</td>
<td>19 (100)</td>
<td>45 (93.7)</td>
<td>0.503</td>
</tr>
<tr>
<td>Objective success, n (%)</td>
<td>34 (80.9)</td>
<td>17 (89.4)</td>
<td>40 (83.3)</td>
<td>0.572</td>
</tr>
<tr>
<td>Patients Complicated, n (%)</td>
<td>2 (4.7)</td>
<td>3 (15.7)</td>
<td>14 (29.1)</td>
<td>0.0095</td>
</tr>
</tbody>
</table>

Table 2: Patients outcomes.

### Complications

<table>
<thead>
<tr>
<th></th>
<th>TAC</th>
<th>TAC-P</th>
<th>TAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain</td>
<td>1</td>
<td>-</td>
<td>3*</td>
</tr>
<tr>
<td>Severe vaginal adhesions</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Extrusion</td>
<td>-</td>
<td>1</td>
<td>8*§</td>
</tr>
<tr>
<td>Hematoma</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Urinary retention</td>
<td>-</td>
<td>-</td>
<td>4§</td>
</tr>
</tbody>
</table>

Table 3: Number of complications. Two patient (*, §) developed both.

### Interpretation of results

Our study is based on a long-term follow-up, longer than 5 years in all the groups. All group had similar characteristics except for the higher rate of associated surgery in TAC group, and for a lower number of patients in TAC-P group. The lower population in TAC-P group could explain the better subjective and objective results (p >0.05). The higher associated procedures for apical support in TAC group could have improved the results in anterior vaginal wall repair. The larger number of complications in TAM group (p <0.05) could explain the lower subjective satisfaction of patients.

### Concluding message

Considering the recent FDA order to reclassify surgical mesh from class II to class III (1), and the recent SCENHIR document on “Safety of surgical meshes used in urogynecological surgery” (2) our data show that it is possible to revalue transvaginal anterior colporraphy technique alone or associated with a Xenograft. Actually our patients treated without the use of a polypropylene mesh have objective and subjective outcomes noninferior or superior respect to those treated by mesh. Moreover, also complication rate is lower in patients underwent surgery without mesh.

### References

1. [http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm479732.htm](http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm479732.htm)

### Disclosures

**Funding:** No source of fundings or grant received  
**Clinical Trial:** No  
**Subjects:** HUMAN  
**Ethics not Req'd:** it is a retrospective study  
**Helsinki:** Yes  
**Informed Consent:** Yes