

## DOES IT EXIST A SYNDROME SCORE CUT OFF ON THE PFDI ALLOWING A SIGNIFICANT IMPROVEMENT OF POST OPERATIVE FUNCTIONAL RESULTS ?

### Hypothesis / aims of study

Pelvic organ prolapse became a common pathology during few years. Most of its incidence, pelvic organ prolapse care is increasing. Surgical repair is an important treatment part. A better quality of life (QOL Questionnaires) is associated to the treatment. However, Qol improvement is different by patient. Questionnaires used were PFDI and PFIQ. Predictive answers for surgical treatment are few; we propose to evaluate pre operative questionnaires.

### Study design, materials and methods

We used a database of women with cystocele and rectocele vaginal repair. Surgical repair was performing in 8 different centers with the same vaginal synthetic mesh procedure. Investigations were done pre operatively and post operatively at 6, 12, 24 and 36 months. Objective improvement of Qol was considered with an increasing score of more than 50% after surgery at 36 months follow up (M36) compare to pre operative score (M0).

We investigate the M0 cut off score to prevent a Qol improvement at M36. A ROC (receiver operating characteristic) curve modeled by logistic regression was done with varying cut off score. It represents probability than M0 score identify a post operatively improved patient. Area under ROC curve (AUC) was estimated with a confidence interval of 95%. Cut off score was selected to optimize sensibility and specificity. M0 cut off score diagnosis characteristics were calculated with a confidence interval of 95%.

Statistical analysis was performed with SAS software 9.1 (SAS Institute, Cary, N.C.) with  $p=.05$ . Simple comparison analyses were done with Student or Wilcoxon test for quantitative data and with chi-2 or Fisher test for qualitative data.

### Results

A total of 193 patients were included in the study. PFDI and PFIQ scores were notified at M0 and M36 respectively for 109 and 67 patients.

For PFIQ (n=67), no statistically significant difference was found for M0 score function to the M36 score evolution (improvement vs non improvement)  $p=.516$ .

For PFDI score (n=109), 80 patients who had a Qol improvement at M36 had a significant higher M0 score than 29 patients not improved:  $89.7 \pm 53.0$  vs  $65.4 \pm 46.1$ ;  $p=.002$ .

ROC curve, AUC show a good prediction (.64) and significantly higher than .5 ( $p=.02$ ).

### Interpretation of results

The better M0 cut off score to prevent an improvement score at M36 is 62/300.

This cut off selected, we had:

- Positive Predictive Value (PPV):83.6% of patients with a pre operative PFDI score under 62 were "improved" at M36.
- Specificity: 62.1% of patients not improved at M36 had a M0 score under 62.

M0 PFDI score upper 62 patients had significantly more chance to be improved by surgical repair at M36: 83.6% versus 57.1%;  $p=.002$ .

### Concluding message

Prognostic factor research to improve Qol on a functional disease such as pelvic organ prolapse, with surgical repair issue, is necessary. Qol impact before surgery seems to be one. Cut off on pre operative score, if it is validated on PFDI (>62), must improve POP treatment. A prospective multicentre evaluation is in process to valid this cut off.

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<b>What were the subjects in the study?</b>	<b>HUMAN</b>
<b>Was this study approved by an ethics committee?</b>	<b>No</b>
<b>This study did not require ethics committee approval because</b>	<b>retrospective study</b>
<b>Was the Declaration of Helsinki followed?</b>	<b>Yes</b>
<b>Was informed consent obtained from the patients?</b>	<b>Yes</b>