Wong M<sup>1</sup>, Yazdany T<sup>1</sup>, Rezvan A<sup>1</sup>, Bhatia N<sup>1</sup>, Nguyen J<sup>2</sup> **1.** Harbor-UCLA Medical Center, Torrance, CA, USA, **2.** Kaiser Permanente, Downey, CA, USA

# INTRA-OPERATIVE ASSESSMENT OF ANTERIOR VAGINAL PROLAPSE AT THE TIME OF VAGINAL VAULT SUSPENSION: TO FIX OR NOT TO FIX.

## Hypothesis / aims of study

We evaluated postoperative anterior vaginal support in women with combined anterior and apical vaginal prolapse undergoing vaginal vault suspension with and without concurrent anterior vaginal prolapse repair. The aim of this study is to determine if deciding not to perform an anterior repair at the time of vaginal apex suspension results in higher post-operative anterior vaginal prolapse stage.

## Study design, materials and methods

The medical records of patients with Stage 2 or greater anterior vaginal prolapse and Stage 1 or greater apical or uterine prolapse who underwent transvaginal apical vaginal suspension between 2000 and 2009 at Harbor-UCLA Medical Center and Kaiser Permanente, Bellflower, with at least six weeks post-operative follow-up, were retrospectively reviewed. All surgeries were performed by one of the authors. The need for concurrent anterior vaginal prolapse repair was assessed intra-operatively. Those who had adequate intra-operative reduction of the anterior vagina with apical support did not undergo concurrent anterior vaginal prolapse repair, while those who did not underwent anterior colporrhaphy (AC). The primary outcome measure was postoperative anterior vaginal support with objective failure defined as  $Ba \ge 0$ . Objective failure rate for  $Ba \ge -1$  was also determined. Secondary outcomes were subjective prolapse symptoms and re-operation of anterior vaginal wall prolapse.

Exclusion criteria were concurrent Burch colposuspension, abdominal paravaginal repair, abdominal sacral colpopexy, abdominal vault suspension, sacrospinous cuff suspension, use of permanent mesh or graft for anterior vaginal prolpase repair, Stage 1 or 0 anterior vaginal prolpase, less than 2 months follow-up, and absent preoperative and/or postoperative POPQ exam. Student's t test was used to compare continuous variables, Wilcoxon rank test was used to compare ordinal data, and Chi square test was used to compare non-continuous variables. Statistical significance was defined as P>0.05.

# <u>Results</u>

The study cohort consisted of 85 women with combined anterior and apical vault or uterine prolapse who met all inclusion and exclusion criteria. All subjects underwent transvaginal high uterosacral ligament suspension. Forty-four required anterior colporrhaphy (AC) and 41 did not require anterior colporrhaphy (No AC) at the time of vaginal vault suspension. The two groups were similar in age, BMI, menopausal status, ethnicity, parity, prior hysterectomy status, concomitant surgeries, estimated blood loss, length of hospital stay, and complications. Subjects requiring AC had worse median (range) preoperative Ba scores than those in the no AC group [1 (-1,6) vs. 0 (-1,9), P=0.03]. Mean follow-up time for the AC and no AC groups were 20 and 34 months (P=0.03) respectively. Objective failure was low in women who did not undergo concurrent anterior vaginal prolapse repair (n=5, 12%). There was a trend in a higher rate of objective failure in women who required concurrent anterior colporrhaphy (n=14, 32%), but this did not reach statistical significance [P=0.06, OR 3.4 (95% Cl, 1-13)]. When objective failure was defined as Ba  $\ge$  -1, the rates increased for both the AC and No AC groups [n=25, 57% vs. n=14 (34%), P=0.06, OR 2.5 (95% Cl, 1-7)] respectively. Symptomatic prolapse [n=6 (16%) vs. n=2 (5%), P=0.27)] and prolapse reoperations [(n=4 (9%) vs. n=0, P=0.12)] were low for both the AC and No AC groups respectively.

### Interpretation of results

Post-operative anterior vaginal prolapse for apical vaginal suspension with anterior colporrhaphy was not stastistically significantly different than apical vaginal suspension without anterior colporrhaphy.

### Concluding message

Traditional anterior colporraphy is associated with relatively high rate of recurrent prolapse. Deciding not to repair anterior vaginal prolapse based on observing adequate intra-operative anterior vaginal reduction with apical suspension does not result in high recurrent prolapse.

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Was the Declaration of Helsinki followed?	Yes
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