BRCA carriers, male breast cancers, stage IV cancer at diagnosis, women who transitioned from GnRH to BSO, and women who were postmenopausal at diagnosis. Patients on AI, tamoxifen, or both sequentially were included. Charts of 334 women were reviewed and included in analysis. Univariate tests were conducted using ANOVA (continuous variables) and Pearson's Chi-Squared test (categorical variables). Primary endpoints, cancer-free and overall survival, were compared between the two groups using Cox regression models.

RESULTS: Patients in the BSO group were older at diagnosis, had a lower stage on average at diagnosis, and were less likely to have HER2+ tumors. There was a higher cancer-free and overall survival rate in patients who underwent BSO. This difference remained statistically significant even after controlling for age at diagnosis and stage at diagnosis with the BSO group having a significantly longer cancer-free and overall survival time than those that received ovarian suppression. The 10-year cancer-free survival rate was 97% (CI 95%, 100%) for BSO patients and 84% (CI 73%, 97%) for ovarian suppression patients. The 10-year overall survival rate was 97% (CI 95%, 100%) for BSO patients and 86% (CI 75%, 98%) for ovarian suppression patients. P-values were significant for both cancer-free and overall survival Kaplan-Meier curves between the two groups (0.0015 and 0.0003 respectively).

CONCLUSION: In this retrospective database review of a large breast cancer registry, women with lower risk tumors were more likely to undergo BSO than ovarian suppression, which may account for the longer cancer-free and overall survival rates in this group.

03   Longitudinal reoperation risk after apical suspension procedures in female pelvic reconstructive surgery

N. M. Shah[2,1], A. A. Berger[4], Z. Zhuang[3], J. Tan-Kim[2], S. Menefee[2]
[1]OB/Gyn, University of California, San Diego, San Diego, CA, [2]OB/Gyn, Kaiser Permanente, San Diego, San Diego, CA, [3]Research and Evaluation, Kaiser Permanente Southern California, San Diego, CA, [4]OB/Gyn, University of California, San Francisco, San Francisco, CA

OBJECTIVES: To analyze longitudinal reoperation risk for recurrent pelvic organ prolapse (POP) among the 4 apical suspension procedures over a period of 2 through 15 years.

MATERIALS AND METHODS: This multicenter, retrospective cohort study included adult women who underwent sacrocolpopexy (SCP), uterosacral ligament suspension (USLS), sacrospinous ligament fixation (SSLF), or colpocleisis (CC) from January 1, 2006 through December 31, 2018, with follow up through July 25, 2021. Women who underwent vaginal prolapse repair with mesh augmentation or concomitant rectopexy were excluded. Data were abstracted using procedural and diagnosis codes with manual review of 10% of each variable. The primary outcome was reoperation for POP in any compartment. Rates were compared using a X^2 test with Bonferroni correction. Time to event distributions was contrasted with a log rank test. Multivariate analysis using a Cox proportional hazards model with Firth correction evaluated the following predictors: index surgery, patient characteristics (age, race/ethnicity, body mass index [BMI], smoking status), concomitant procedures (hysterectomy, compartment repairs, incontinence procedures), and year of index surgery. Censoring events included exit from the health maintenance organization and death.
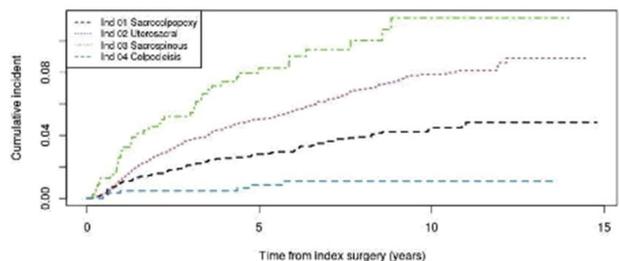
RESULTS: This cohort included 9,117 women with mean age of 60.6 (SD ±11.6) years and BMI of 28 kg/m^2 (±4.9) at the time of index surgery. Most women were Hispanic (48.3%) or White (40.2%). The overall reoperation rate was 5.1%. Rates by procedure are shown in Table 1. Significant differences were found in the following pairwise comparisons: SCP (3.6%) versus USLS (6.1%; P <0.0006), SCP (3.6%) versus SSLF (9%; P <0.0006), SCP (3.6%) versus CC (0.8%; P <0.0006), USLS (6.1%) versus CC (0.8%; P <0.0006), and SSLF (9%) versus CC (0.8%; P <0.0006). Reoperation rate did not significantly differ between USLS (6.1%) and SSLF (9%; P =0.074) after correction for multiplicity. Similarly, pairwise comparisons of time to event distributions were significant (P =0.0003-0.0018), except for USLS versus SSLF (P =0.05). Index procedure was found to be a significant predictor of reoperation when compared to SCP (Table 1, P =0.0003-0.0024). No other covariates were shown to consistently predict reoperation upon either crude or adjusted analysis.

CONCLUSION: While overall reoperation rate after apical suspension is low, index surgery is a significant predictor of reoperation. CC offers the most durable prolapse repair, followed by SCP. USLS and SSLF appear to be comparable to one another in durability.

Table 1: Reoperation rate and time to event distribution for apical suspension procedures

Index procedure	Number of patients	Absolute reoperation rate (%)	Hazard ratio	95% Confidence interval	P-value
SCP	2,793	3.6	1 (reference)	not applicable	not applicable
USLS	5,581	6.1	1.8	1.4-2.2	< 0.0003
SSLF	464	9	2.8	1.9-3.9	< 0.0003
CC	845	0.8	0.28	0.12-0.56	0.0024

Figure 1: Time to reoperation for recurrent prolapse by index apical suspension procedure