

Surgical repair of vaginal vault prolapse; a comparison between Uterosacral ligament suspension and Sacrospinous Ligament Fixation

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Objective: Some patients develop vaginal vault prolapse after a hysterectomy. This can be treated with various surgical techniques. Among others the Uterosacral ligament suspension (ULS) and the Sacrospinous ligament fixation (SSLF). The aim of this study was to compare the ULS and the SSLF to treat vaginal vault prolapse based on the number of reoperations.

Methods: In this unselected nationwide register-based cohort study 978 patients were included; 589 underwent ULS and 389 underwent SSLF. Previously hysterectomized patients operated with either SSLF or ULS in Denmark in 2010-2016 were included and followed until June 2017. The index operations and re-operations were identified in the Danish National Patient Register and clinical data were obtained from the DUGA-base. Data were analyzed using a Cox proportional hazard regression analyze adjusted for age, preoperative prolapse stage, smoking, and BMI.

Results: After five years 13.1 % of patients operated with ULS, and 29.0 % operated with SSLF had a reoperation in any compartment, and 6.4 % and 21.1 % in the apical compartment respectively (fig. 1). The reoperation rate was 2.0 times higher after SSLF compared to ULS (confidence interval (CI): 1.0-3.8) in the anterior compartment, and 4.3 times higher (CI: 2.6-7.0) in the apical compartment. No difference was seen in the posterior compartment.

Discussion: This study finds ULS superior to SSLF regarding reoperations in anterior and apical compartment.

This is contrary to the large randomized OPTIMAL where no difference was found¹. It might be explained by different populations and health care systems as well as study design. Strengths of this study were unselected nationwide population-based cohort with limited inclusion bias. Limitations were the observational approach with no randomization of intervention and potential confounding.

Randomized trials might differ from real-world observational studies including broader groups of patients and various surgical centers. It is important that individual centers conduct quality control when new surgical techniques are implemented in the clinics.

