

Title: Sexual function 3–14 years after vaginal vault suspension: Comparison of surgical techniques. Part of the DIVA study.

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Objective

To assess sexual function after apical prolapse surgery across six vaginal vault suspension techniques.

Methods

This nationwide cohort study was based on data from the Danish Urogynecological Database (DugaBase) with long-term follow-up of patient-reported outcomes (3–14 years). Women with prior hysterectomy who underwent primary surgery for vaginal vault prolapse between January 1, 2010 and December 31, 2020 were identified in DugaBase using NOMESCO procedure codes and verified by chart review. The included surgical techniques were sacrocolpopexy (SCP), laparoscopic uterosacral ligament suspension (LUSLS), ipsilateral uterosacral ligament suspension (IUSLS), vaginal extraperitoneal uterosacral ligament suspension (VEULS), sacrospinous ligament fixation (SSLF), and SSLF with graft. Sexual activity and related symptoms were assessed using the validated ICIQ-VS questionnaire (questions 10–13; Sexual Matter Score, range 0–58).

Results

A total of 1,016 women were included (85.7%). At long-term follow-up, sexual activity status did not differ between procedures ($p = 0.40$); 28% reported postoperative sexual activity and 10% sexual inactivity due to vaginal symptoms. Despite similar sexual activity rates, ICIQ-VS Sexual Matters scores differed significantly between procedures, with a greater negative impact on sexual function after SSLF with graft (adjusted ratio 4.07; 95% CI, 1.19-13.91), SSLF (adjusted ratio 1.87; 95% CI, 0.86-4.07) and IUSLS (adjusted ratio 1.86; 95% CI, 0.80-4.35) compared with SCP. Adjusted analyses assessed the effect of age, time since the first vaginal vault suspension, and prior anterior/posterior prolapse surgery on questionnaire outcomes using SCP as reference. Reoperated women experienced greater symptom burden after IUSLS and SSLF with graft, whereas sexual activity status and Sexual Matter scores were similar between primary and reoperated cases.

Conclusion

SSLF with graft was associated with a significantly higher sexual burden compared with SCP, whereas SSLF and IUSLS demonstrated non-significant trends in the same direction.