Postoperative voiding difficulty and mesh-related complications after Total Prolift System surgical repair for pelvic organ prolapse and predisposing factors.

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Abstract

OBJECTIVE: We aimed to evaluate the incidence and predisposing factors of postoperative voiding difficulty and mesh-related complications.

METHODS: In this prospective cohort study, 206 consecutive women with advanced pelvic organ prolapse underwent surgical repair with the Prolift mesh kit at Peking Union Medical College Hospital, with a mean follow-up of 4.2 years. Postoperative voiding difficulty was defined as postvoid bladder volume of 100 mL or more (or more than one third of voided volume). The International Urogynecological Association/International Continence Society joint terminology was used for mesh-related complications and pain. Symptomatic recurrence was defined as symptomatic Pelvic Organ Prolapse Quantification stage II or higher. χ test and univariate or multivariate logistic regression were used for data analysis.

RESULTS: Fourteen (6.8%) women were lost to follow-up. Postoperative voiding difficulty occurred in 60 of 192 (31.25%) women; low preoperative average urine flow (odds ratio [OR], 4.7; 95% CI, 1.3-17.2) and residual urine volume (OR, 2.6; 95% CI, 1.3-5.0) were independent risk factors. In total, 85% (51 of 60) reported symptom resolution within 3 days. Women with a postoperative residual urine volume of 200 mL or more experienced a more difficult recovery (P = 0.01). Mesh-related complications were reported in 29 of 192 (15.1%) women, with vaginal complications (mesh exposure/contraction) accounting for 69.0% (20 of 29). Greater blood loss (OR, 5.9; 95% CI, 2.1-18.7) and past pelvic surgical operation (OR, 6.3; 95% CI, 1.3-23.8) were strongly related to these complications. Three hematomas (7A) and six skin complications (6B) were also reported. However, the small participant sample prevented pain and recurrence analyses.

CONCLUSIONS: Low average urine flow rate and preoperative urinary retention can be used to predict postoperative voiding difficulty. Vaginal complications (mesh exposure/contraction) are the primary mesh-related complications and are predicted by greater blood loss and past pelvic surgical operation.