

Transvaginal Repair of Anterior Vaginal Wall Prolapse with Polyvinylidene Fluoride (PVDF) Mesh: An Alternative for Previously Restricted Materials

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Abstract : Introduction: To study the mid-term safety and functional outcomes of transvaginal anterior vaginal wall prolapse repair using polyvinylidene fluoride (PVDF) mesh (DynaMesh®-PR4) by the double trans-obturator technique (TOT). Methods: Between 2015 and 2020, we prospectively included women with symptomatic high-stage anterior vaginal wall prolapse with or without uterine prolapse or stress urinary incontinence (SUI) in the study. The patients underwent transvaginal repair of the prolapse using PVDF mesh in two medical centers. We followed all patients for at least 12 months. We recorded the characteristics of vaginal and sexual symptoms, urinary incontinence, and prolapse stage pre- and postoperatively using International Consultation on Incontinence Questionnaire-Vaginal Symptoms (ICIQ-VS), International Consultation on Incontinence Questionnaire-Urinary Incontinence-Short Form (ICIQ-UI-SF), and Pelvic Organ Prolapse Quantification (POP-Q) system, respectively. Results: One hundred eight women were included in the final analysis with a mean follow-up time of 34.5 ± 18.6 months. The anatomical success was achieved in 103 (95.4%) patients. There was a significant improvement in patients' vaginal symptoms, urinary incontinence, and quality of life scores postoperatively ($p < 0.0001$). Only six patients (5.5%) had mesh extrusion, five of whom were managed successfully. The total rates of complications and de novo urinary symptoms were 21.3% and 7.4%, respectively. Significant pain was reported in 17 cases (15.7%). Conclusion: Our findings show that using PVDF mesh in the double TOT technique for anterior vaginal wall prolapse repair is a safe procedure with high anatomic and functional success rates and acceptable complication rates in mid-term follow-up.

Keywords : stress urinary incontinence (SU, incontinence questionnaire-vaginal symptoms (ICIQ-VS), polyvinylidene fluoride (PVDF) mes, double trans-obturator technique (TOT)

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