OBJECTIVE: While transvaginal polypropylene mesh is increasingly used in the management of pelvic organ prolapse, contraction of the mesh after implantation may cause substantial morbidity. This report defines the clinical entity of vaginal mesh contraction.

METHODS: This is a case series of women who underwent surgical intervention for the management of symptomatic vaginal mesh contraction in our tertiary referral urogynecology center between January 2007 and December 2008. We evaluated the presenting symptoms, examination findings, subsequent management, and outcome.

RESULTS: Seventeen women with vaginal mesh contraction were included in this series. Clinical presentation included severe vaginal pain, aggravated by movement (17 of 17), dyspareunia in all sexually active women (14 of 14), and focal tenderness over contracted portions of the mesh on vaginal examination (17 of 17), commonly involving the lateral fixation arms. Mesh erosion (9 of 17), vaginal tightness (7 of 17), and shortening (5 of 17) were frequently present. Surgical intervention consisted of mobilization of the mesh from the underlying tissue, division of fixation arms from the central graft, and excision of contracted mesh. After surgery, 88% (15 of 17; 95% confidence interval 73–104) of women have experienced substantial reduction in vaginal pain and 64% (9 of 14; 95% confidence interval 39–89) experienced substantial reduction in dyspareunia. Three women required subsequent excision of the entire accessible mesh because of persisting symptoms.

CONCLUSION: Vaginal mesh contraction is a serious complication after prolapse repair with armed polypropylene mesh that is associated with substantial morbidity, frequently requiring surgical intervention. Research and development is urgently needed for newer graft materials with diminished shrinkage properties.

LEVEL OF EVIDENCE: III

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