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ORIGINAL ARTICLE

The IUGA/ICS classification of synthetic mesh complications in female pelvic floor reconstructive surgery: a multicenter study

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Abstract

Introduction and hypothesis The objective was to report patterns of sling and transvaginal mesh-related complications using the IUGA/ICS classification of prosthesis-related complications.

Methods This was a retrospective chart review of all patients who underwent surgical removal of sling, transvaginal mesh, and sacrocolpopexy for mesh-related complications from 2011 to 2013 at three tertiary referral centers. The International Urogynecological Association (IUGA)/International Continence Society (ICS) classification system was utilized.

Results We identified 445 patients with mesh complications, 506 pieces of synthetic mesh were removed, and 587 prostheses-related complications were classified. 3.7 % of patients had viscus organ penetration or vaginal exposure as their presenting chief complaint and 59.7 % were classified as not having any vaginal epithelial separation or category 1. The most common category was spontaneous pain (1Be: 32.5 %) followed by dyspareunia (1Bc: 14.7 %). The sling group was 20 % more likely to have pain compared with the pelvic organ prolapse (POP) mesh group (OR 1.2, 95 % CI 0.8–1.6). The most commonly affected site (S2) was away from the suture line (49 %). Compared with the sling group, the POP group had a higher rate of mesh exposure, which mostly occurred at the suture line area. The majority of patients presented with mesh-related complications more than 1 year post-insertion (T4; average 3.68 ± 2.47 years).

Conclusion Surgeons should be aware that patients with vaginal mesh complications routinely exhibit complications more than 1 year after the implantation with pain as the most common presenting symptom.

Keyword Mesh complication · IUGA/ICS classification · Sling complication · Transvaginal mesh · Mesh removal · Mesh complication classification

Introduction

The use of surgical mesh for the repair of pelvic organ prolapse (POP) and stress urinary incontinence (SUI) has increased substantially over the last 15 years with the advent of mesh kits for slings and transvaginal mesh (TVM) kits for POP. The popularity of these mesh kits surged because surgeons believed they produced higher cure rates and were easier to perform [1–4]. However, as the use of synthetic mesh increased, so did reports of complications. These two points have called into question the true overall risks of mesh use in female pelvic surgery. Owing to the elevated occurrence of reported mesh complications, the US Food and Drug Administration (FDA) issued a Public Health Notification in 2008 concerning the serious complications of surgical mesh placed via the vagina to treat POP and SUI. In 2011, the FDA issued an UPDATE based on a recent review of the medical literature, and additional FDA-reported complications. The report suggests that surgical mesh for the transvaginal repair of POP might be an area of serious concern [5]. The most commonly

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