

THE IUGA/ICS CLASSIFICATION OF SYNTHETIC MESH COMPLICATIONS IN FEMALE PELVIC FLOOR RECONSTRUCTIVE SURGERY: A MULTICENTER STUDY

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Abstract:

Introduction: Reports of prostheses related complications are increasing in the field of female pelvic floor reconstructive surgery. The IUGA/ICS (International Urogynecological Association/ International Continence Society) created the uniform classification system in order to systematically report mesh complications in a standardized manner¹.

Objectives: Our objective was to analyze the utility of the IUGA/ICS prosthesis related complications classification and to report on sling and transvaginal mesh related complications.

Methods: This was a retrospective chart review of all patients who underwent surgical removal of sling, transvaginal synthetic mesh and sacrocolpexy for mesh related complications from 2011 to 2013 at three tertiary referral centers in the Southeast United States. The IUGA/ICS classification system for prostheses complications was used to report complications. We included all women who underwent reconstructive pelvic surgery using synthetic mesh for prolapse or urine incontinence and subsequent synthetic mesh removal due to complications. The database was queried to identify potential subjects. Data was analyzed by using chi-square test for categorical data, and Student's t-test and Wilcoxon Rank Sum test for continuous data. The measure of effect was determined by logistic regression analysis.

Results: We identified 445 patients with mesh complications who subsequently underwent mesh removal laparoscopically, via groin dissection and/or transvaginally. Of those identified, 178 (40%) had transvaginal mesh inserted for treating pelvic organ prolapsed (POP), 373 (83.8%) had a midurethral sling, and 38 (8.5%) had sacrocolpexy. There were 506 pieces of synthetic mesh removed and 587 prostheses related complications classified. The mean age was 53.8±11.2 year and parity 2.5±1.2. The majority of patients were Caucasian (82.0%), postmenopausal (72.8%), sexually active (52.1%), and insured (76.4%). 82.9% had previous hysterectomy and 92.6% had previously been seen by a different physician(s). Twenty-five percent were current smokers. Twenty-eight percent had a previous mesh revision or removal.

The most common presenting chief complaint was pain (68.6%) with or without intercourse. Only 3.7% of patients had viscus organ erosion or vaginal extrusion as their presenting chief complaint. According to the IUGA/ICS classification, 59.7% were classified into category 1 (no vaginal epithelial separation). The most common category was pain related (1Be –32.5%) followed by dyspareunia (1Bc –14.7%). Most patients presented with mesh related complications over a year after insertion (T4). The most common affected site (S2) was away from the suture line (49%) (Table 1). Sling group was 20% more likely to have pain than POP group (OR 1.2, 95% 0.8- 1.6). Comparing sling and mesh for POP complications classification, mesh for POP group had higher erosion/extrusion (less than 1 cm exposure 17.6% vs. 11.1%, p=0.024, more than 1 cm exposure 25.6% vs. 6.9%, p<0.001) and more likely to occur at the area of the suture line (36.1% vs. 15.0%, p<0.001) than the sling group. However, the sling group had more complications in category 1 (vaginal no separation 68.0% vs. 48.4%, p<0.001) and category 6 (skin and musculoskeletal 7.5% vs. 3.6%, p=0.047).

Conclusion: Based on these results surgeons should be aware that patients with mesh complications are routinely