

# Urogynecology digest

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## Eminence-based mesh repair: who decides and who cares?

Rogo-Gupta L, Rodriguez LV, Litwin MS, Herzog TJ, Neugut AI, Lu YSet al (2012) Trends in surgical mesh use for pelvic organ prolapse from 2000 to 2010. *Obstet Gynecol* 120 (5):1105–1115

Despite the paucity of data regarding the safety of transvaginal mesh and the US Food and Drug Administration (FDA) notification concerning mesh complications, the use of surgical mesh for pelvic organ prolapse (POP) repair is still widespread. What factors potentially influence its use? This retrospective study examines the use of surgical mesh for POP repair from 2000 to 2010 using an American voluntary database representing 15 % of all hospital admissions.

Among 273,275 women in the database who underwent POP repair, 64,968 (23.8 %) had mesh-augmented repair. A surprisingly high rate of women (42.6 %) underwent concurrent incontinence surgery and this was a strong predictor of mesh use. Other predictors of mesh use were intermediate-volume and high-volume surgeons, women older than 50 years, those with apical and anterior compartment defects and operation performed by urologist. Based on these data, urologists were more than three times more likely to perform mesh-augmented prolapse repair than gynaecologists. Black women and those with commercial insurance were less likely to receive mesh.

Remarkably, after concerns raised by the FDA in 2008, the use of surgical mesh by high-volume surgeons decreased unlike use by low-volume and intermediate-volume physicians. The authors hypothesized that these differences may reflect increased experience with mesh-related complications in individual practices. Total mesh use increased from 7.9 % in 2000 to a peak of 32.1 % in the fourth quarter of 2006 and then declined slightly to 27.5 % in 2010.

The main limitation of the study is that some factors that could significantly affect treatment choices such as patient's preference, previous surgery and stage of the prolapse remained unmeasured. Also all procedures were grouped by prolapse compartment and not by surgical method, so

no evaluation of different surgical routes (vaginal, abdominal, laparoscopic) was performed.

## Is the rate of vesicovaginal fistula increasing in the developed world?

Hilton P, Cromwell D (2012) The risk of vesicovaginal and urethrovaginal fistula after hysterectomy performed in the English National Health Service—a retrospective cohort study examining patterns of care between 2000 and 2008. *BJOG* 119(12):1447–1454

It has been estimated that there are currently up to 3,000,000 women with untreated fistula worldwide. Contrary to the developing world, where over 95 % of fistulas are obstetric, in the developed world it is an uncommon condition and two thirds of cases have a surgical aetiology. Almost half of published case series was associated with hysterectomy. Despite the decreasing number of hysterectomies undertaken in the UK over the last decade, the number of surgically treated urogenital fistulas remains constant. The authors suggested that the risk of urogenital fistula following hysterectomy might have increased.

This study analysed 343,771 elective hysterectomies with a total of 436 cases of vesicovaginal or urethrovaginal fistula within 1 year after operation and examined whether the risk of a urogenital fistula is affected by the indication, the type of procedure carried out and the age at surgery.

The overall rate of vesicovaginal fistula or urethrovaginal fistula recorded within a year after hysterectomy was 1 in 788 (0.13 %). As expected, this differed across the various combinations of procedures and indications. The rate was highest following radical abdominal hysterectomy for cervical cancer (1 in 87) and lowest following vaginal hysterectomy for prolapse (1 in 3,861). The most common type of hysterectomy undertaken for fibroids, endometriosis and menstrual disorders was total abdominal hysterectomy, which resulted in a fistula rate of 1 in 540. For the same diagnostic groups, the rate was 1 in 2,279 for subtotal abdominal hysterectomy.

Interestingly, the authors observed a 46 % increase in risk of fistula following hysterectomy for benign conditions over the study period and offer two possible explanations. One could be an increase in the proportion of more difficult procedures among all hysterectomies and the fall in the number of benign indications such as menorrhagia. As another potential contributory factor, the authors proposed the changes in surgical training in gynaecology. Trainees' satisfaction with operative teaching declined consistently between 1995 and 2008. This could be a consequence of the reduced number of hysterectomies and deficit of surgical experience obtained during their training.

Although this study is based on the Hospital Episode Statistics (HES) database, which could be limited by coding accuracy, it is the largest reported cohort study on the risk of urogenital fistula following hysterectomy. The data including laparoscopic procedures still need to be evaluated.

#### **Simple division or partial excision for voiding dysfunction after midurethral sling operations: is there a difference?**

Agnew G, Dwyer PL, Rosamilia A, Edwards G, Lee JK (2012) Functional outcomes for surgical revision of synthetic slings performed for voiding dysfunction: a retrospective study. *Eur J Obstet Gynecol Reprod Biol* 163(1):113–116

Although synthetic slings have rapidly become the first-line surgical treatment for female stress urinary incontinence (SUI) as generally well tolerated and safe, no standard protocol has been established for the management of post-operative voiding dysfunction. This retrospective review analysed the outcome of 63 women who underwent surgical

revision of a sling for the treatment of voiding dysfunction over an 11-year period. The authors defined voiding dysfunction as a post-void residual of >150 ml. The study population consisted of a heterogeneous group of patients regarding previous operations, surgeon and participating centre, the type of mesh implanted, concomitant prolapse operations during the first procedure (almost 50 % of all cases) and concomitant incontinence procedure during revision. The interval between primary operation and revision ranged from 1 week to 8 years.

Three types of surgical revision were performed: simple sling division, partial excision of material and either division or excision but with a concomitant procedure to prevent recurrent SUI. Persistent voiding dysfunction following revision in each of the three groups varied from 7.7 to 50 %, but this difference between groups still remained statistically not significant. The authors also looked at the number of patients who developed de novo overactive bladder following the initial sling placement and its persistence following revision. The rate was highest (25 %) in the group that underwent a concomitant procedure to prevent recurrent SUI, but it also did not reach statistical significance.

Due to its retrospective design, small sample size and very heterogeneous group of patients, the results of this study should be interpreted cautiously. However, this article highlights the urgent need for studies on the management of complications in the growing field of surgery for SUI. Evaluation of women who will benefit from conservative management, time and type of surgical revision and the role of concomitant operations should be the topics for further research.

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