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RETROSPECTIVE REVIEW OF MESH EROSION ASSOCIATED WITH TRANSVAGINAL MESH PROLAPSE REPAIR IN A COMMUNITY SETTING.

Hypothesis / aims of study

To assess the rates of mesh erosion and re-operation in women with pelvic organ prolapse, treated with transvaginal mesh kits. This study also aims to demonstrate the safety of transvaginal mesh kits when employed by well-trained general gynecologists in a community-setting.

Study design, materials and methods

Between June 2005 and September 2009, 388 women underwent prolapse repair using Apogee®, Perigee® and/or Elevate® (American Medical Systems); Avaulta® (Bard Urological); Prolift® (Ethicon); Biomesh® Soft Prolaps cysto4pcp9 (Cousin Biotech). Concomitant hysterectomy and/or transvaginal mid-urethopexy using Monarc® or MiniArc® (American Medical Systems) or Advantage® (Boston Scientific) were performed where clinically indicated. A total of 786 mesh systems were used. Procedures were performed by two general gynecologists in a community setting in Southwestern Ontario. Patient charts were reviewed retrospectively to determine rates of mesh exposure (≤6 weeks from procedure), mesh erosion (>6 weeks from procedure) and rates of re-operation.

Results

There were 388 women who underwent prolapse repair with transvaginal mesh kits. Concomitant hysterectomy and transvaginal mid-urethropexy with mesh were performed in 79 (20.3%) and 255 (65.7%) women respectively.

Of the 388 women undergoing prolapse repair with transvaginal mesh kits, 26 women (6.7%) had at least one mesh exposure/erosion. Seven women (1.8%) had mesh exposures while 19 women (4.9%) had mesh erosions. One woman had two episodes of mesh exposure and another woman had two episodes of mesh erosion. None of the mesh exposures/erosions were attributed to the mid-urethropexy meshes. Of the 28 mesh exposures/erosions, 25 required surgical repair, while 3 were managed in the office. Of the 26 women with at least one exposure/erosion, 13 had had concomitant hysterectomy.

Interpretation of results

Mesh erosion is the most commonly quoted complication associated with transvaginal mesh kits, with a complication rate ranging between 6.2-10.2% (1-3). The exposure/erosion rate in this study was 6.7%, similar to rates quoted in the literature. The majority of exposures/erosions did not respond to conservative management with conjugated equine estrogen cream and required a second operation. There were no serious complications, such as infection or fistula formation.

Concluding message

This is believed to be the largest cohort of patients in Canada that were treated with a variety of transvaginal mesh kits for pelvic organ prolapse in a community setting by two general gynecologists. Mesh exposure/erosions occurred in 6.7% of women, the majority of which were managed surgically. There were no major complications in this cohort. With adequate training and experience, transvaginal mesh kits are a safe option for the management of pelvic organ prolapse.

References

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Is this a clinical trial?	**Yes**
Is this study registered in a public clinical trials registry?	**No**
Is this a Randomised Controlled Trial (RCT)?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**Yes**
Specify Name of Ethics Committee	**Research Ethics Board at the Windsor Regional Hospital (WRH REB 10-189-09)**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**No**