

Mesh Erosion Not Tied to Pre-Op Vaginal Health

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HOLLYWOOD, FLA. — Among women undergoing anterior wall prolapse surgery, there is no correlation between baseline assessment of vaginal health and subsequent mesh erosions, according to results of one study.

Researchers found a mesh extrusion rate of 8% among 108 participants following cystocele repair. A total of seven out of nine (78%) of these extrusions occurred in a healthy vaginal environment; the other two occurred in women with a low-estrogen effect. This may seem counterintuitive to some clinicians, Dr. Robert D. Moore said. "Everyone assumes a woman with low-estrogen effect will be at higher risk for mesh complications." Dr. Moore is in private urogynecology practice in Atlanta.

Dr. Moore and his associates are performing this ongoing subanalysis of mesh-related outcomes as a part of a 2-year, prospective, multicenter study of the safety and efficacy of mesh for cystocele repairs. Surgeries are performed at one of eight sites in the United States using the Perigee system with IntePro mesh (American Medical Systems, Minnetonka, Minn.). Dr. Moore disclosed that he is a consultant and speaker for the company, which sponsored the study.

Use of mesh for vaginal repairs remains controversial among some urogynecologists, Dr. Moore said. "We use mesh in our upper procedures, such as abdominal sacral colpopexy, and have seen the benefits of higher cure rates. But when we put it in the vagina, everyone worries about complications, and the biggest is mesh erosion."

Each extrusion was small, localized, and did not require complete removal of the graft. "Ultimately, we've seen it's a minor complication that can be easily dealt with," Dr. Moore said. Six extrusions were treated in the OR with minor excision, and three were treated in the office. Findings were presented at the annual meeting of the American Urogynecologic Society.

All participants had a stage II or III cystocele repair. Mean age was 62 years. Concomitant surgeries included incontinence procedures (65% of women), vault suspensions (57%), and rectocele repairs (60%). Follow-up was done at 6 weeks and 3, 6, 12, and 24 months. Mean OR time for the Perigee procedure was 29 minutes; mean total surgery time was 79 minutes.

There were no infections or abscesses associated with the extrusions up to a mean of 38 weeks' follow-up. With some previously available meshes, bacteria were small enough to enter but larger immune system cells could not. "We know that using a soft polypropylene, macroporous mesh, white blood cells and macrophages can get through to fight off any potential infection," Dr. Moore said.

In the literature, graft extrusion rates of 5%-20% are reported, even with current meshes. "So what else plays a role in mesh extrusion? As patients get older, estrogen decreases and affects the health of the vaginal epithelium," Dr. Moore said.

Participants to date are mostly post-

menopausal (87%), and therefore are considered at higher risk for extrusion or erosion, Dr. Moore said. The surgeons determined postoperative estrogen use in the study, and most said they used it to help healing and reduce the risk of extrusion. But is there a correlation between vaginal estrogen and mesh extrusion? To find out, the researchers assessed estrogen state at baseline using the objective vaginal maturation index. The maturation index is a histopathologic analysis of the vaginal en-

dothelium from a scraping to determine estrogen content. Patients were stratified into low-estrogen effect (17%), moderate-estrogen effect (60%), and high-estrogen effect (23%) groups for further analysis. Surgeons also subjectively rated the health of vaginal skin. A total of 61% of patients had no atrophy, 34% had mild atrophy, and 5% had either moderate or severe atrophy. At baseline, approximately 50% of women were not using any estrogen, 25% were using vaginal estrogen, and about 25% were

using systemic estrogen. At postoperative week 6, 62% were on vaginal estrogen while systemic use stayed about the same, Dr. Moore said.

A secondary finding of the study is that patients who had extrusions were more likely to be on vaginal estrogen in the postoperative period than were the baseline population, implying that "post-op vaginal estrogen use may not be protective against mesh extrusion like we have thought," Dr. Moore commented. ■

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