Study Identifies Risk Factor for Mesh Erosion

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RANCHO MIRAGE, CALIF. — Performing an abdominal sacral suspension using polypropylene mesh concurrent with a total abdominal hysterectomy increases the risk of mesh erosion, Giti Bensinger, M.D., said at the annual meeting of the Society of Gynecologic Surgeons.

A retrospective analysis of charts on 121 women who underwent abdominal sacral suspension for pelvic organ prolapse at North Shore University Hospital in Manhasset, N.Y., found four mesh erosions over a mean 1-year follow-up. Polypropylene mesh had been used in all of the surgeries.

The four mesh erosions occurred among 49 women who had concurrent total abdominal hysterectomy, resulting in a mesh erosion rate of 8% in that group.

There were no erosions in 37 women who underwent concurrent supracervical hysterectomy or in 35 women who had a previous total abdominal hysterectomy and then underwent sacral suspension alone, said Dr. Bensinger of Albert Einstein College of Medicine, New York. The differences in erosion rates between groups were statistically significant.

The low rate of mesh erosion overall suggests polypropylene mesh is safe to use, and a low rate of complications supports reports in medical literature that sacral colpopexy is a safe treatment for vaginal vault prolapse, added Dr. Bensinger, formerly of North Shore University Hospital.

In formal comments after Dr. Bensinger's presentation, Kimberly Kenton, M.D., said the findings echo a report at the Society's 2002 meeting of a 27% mesh erosion rate in women undergoing both colpopexy and hysterectomy, compared with a 1% erosion rate in women who did not undergo hysterectomy at the time of abdominal sacral colpopexy.

"The demand for supracervical hysterectomy is increasing. As a result, many pelvic reconstructive surgeons are beginning to perform supracervical hysterectomy at the time of colpopexy, hypothesizing that this may decrease the rate of mesh erosion" by leaving the vaginal apex intact, said Dr. Kenton of Loyola University, Maywood, Ill. The current study's results support that strategy.

The small number of patients and short follow-up on some of the women limit the weight of the findings, she added. The shortest follow-up was less than 1 month. To evaluate reconstructive surgery results, follow-up should be for 1-5 years, she said.

The median follow-up in all three groups of patients was 5 months, Dr. Bensinger replied. A separate analysis that excluded patients with less than 6 months of follow-up found a similar trend in results that approached statistical significance.

Three previous studies of mesh erosions in women with an intact or missing vaginal apex produced conflicting results. Two found increased mesh erosion rates when a total hysterectomy was performed at the time of abdominal sacral colpopexy, and the third found no difference in erosions with or without an intact vaginal apex.

Reports of mesh erosions after sacral colpopexy suggest that 3%-16% will erode, usually 4-24 months after surgery, she said.

About 10% of women aged 80 years or older will have some type of pelvic reconstructive surgery in their lifetime, Dr. Bensinger noted. From 4% to 33% of surgeries for pelvic organ prolapse fail. Roughly 30% of pelvic reconstructive surgeries are done for prolapse recurrences.

She and her associates focused on abdominal rather than vaginal sacral colpopexy, because the abdominal approach has the advantage of restoring the normal midline axis of the vagina. Also, the abdominal approach seems to provide the best long-term results, with no recurrences in 84%-99% of patients, she added.

A trend toward increasing use of permanent mesh for sacral colpopexy, combined with concerns about synthetic mesh erosions, led them to focus on sacral suspensions that used polypropylene mesh. ■

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