Which treatments for pelvic floor disorders are backed by evidence?

Recent studies support stepwise treatment of pelvic floor disorders. Pelvic floor muscle training (PFMT) produced a small but important reduction in pelvic organ prolapse (POP) symptoms in a randomized controlled trial of women with stage 1 to 3 prolapse. **Surgical repairs with native tissue or mesh** expand treatment choices for POP as well as urinary incontinence, but reoperation for these disorders often is necessary, and mesh should be used with caution, according to data from 2 randomized trials and a cohort study.

FAST TRACK

The lifetime risk of surgery for SUI or POP is 20%, and one-third of women will have reoperation for the same condition

Hagen S, Glazener C, McClurg D, et al. Pelvic floor muscle training for secondary prevention of pelvic organ prolapse (PREVPROL): a multicentre randomised controlled trial. Lancet. 2017;389(10067):393–402.

Glazener CM, Breeman S, Elders A, et al; PROSPECT study group. Mesh, graft, or standard repair for women having primary transvaginal anterior or posterior compartment prolapse surgery: two parallel-group, multicentre, randomised, controlled trials (PROSPECT). Lancet. 2017;389(10067):381–392.

Morling JR, McAllister DA, Agur W, et al. Adverse events after first, single, mesh and non-mesh surgical procedures for stress urinary incontinence and pelvic organ prolapse in Scotland, 1997–2016: a population-based cohort study. Lancet. 2017;389(10069):629–640.

EXPERT COMMENTARY

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Care of women with pelvic floor disorders, primarily urinary incontinence and POP, involves:

- assessing the patient's symptoms and determining how bothersome they are
- educating the patient about her condition and the options for treatment
- initiating treatment with the most conservative and least invasive therapies.

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Safe treatments include PFMT and pessaries, and both can be effective. However, since approximately 25% of women experience one or more pelvic floor disorders during their life, surgical repair of these disorders is common. The lifetime risk of surgery for stress urinary incontinence (SUI) or POP is 20%,[1] and one-third of patients will undergo reoperation for the same condition. Midurethral mesh slings are the gold standard for surgical management of SUI.[2] Use of transvaginal mesh for primary prolapse repairs, however, is associated with challenging adverse effects, and its use should be reserved for carefully selected patients.

Data from 3 recent studies contribute to our evidence base on various treatments for pelvic floor disorders.

Details of the studies

PFMT for secondary prevention of POP. In a study conducted in the United Kingdom and New Zealand, Hagen and colleagues randomly assigned 414 women with POP, with or without symptoms, to an intervention group or a control group. The women had previously participated in a longitudinal study of postpartum pelvic floor function. Participants in the intervention group (n = 207) received 5 formal sessions of PFMT over 16 weeks,

followed by Pilates-based classes focused on pelvic floor exercises; those in the control group (n = 207) received an informational leaflet about prolapse and lifestyle. The primary outcome was self-reported prolapse symptoms, assessed with the POP Symptom Score (POP-SS) at 2 years.

At study end, the mean (SD) POP-SS score in the intervention group was 3.2 (3.4), compared with a mean (SD) score of 4.2 (4.4) in the control group (adjusted mean difference, –1.01; 95% confidence interval [CI], –1.70 to –0.33; $P = .004$).

Investigators' interpretation. The researchers concluded that the participants in the PFMT group had a small but significant—and clinically important—decrease in prolapse symptoms.

The PROSPECT study: Standard versus augmented surgical repair. In a multicenter trial in the United Kingdom by Glazener and associates, 1,352 women with symptomatic POP were randomly allocated to surgical repair with native tissue alone (standard repair) or to standard surgical repair augmented either with polypropylene mesh or with biological graft. The primary outcomes were participant-reported prolapse symptoms (assessed with POP-SS) and prolapse-related quality of life scores; these were measured at 1 year and at 2 years.

One year after surgery, failure rates (defined as prolapse beyond the hymen) were similar in all groups (range, 14%–18%); serious adverse events were also similar in all surgical groups (range, 6%–10%). Overall, 6% of women underwent reoperation for recurrent symptoms. Among women randomly assigned to repair with mesh, 12% to 14% experienced mesh-related adverse events; three-quarters of these women ultimately required surgical excision of the mesh.

Study takeaway. Thus, in terms of effectiveness, quality of life, and adverse effects, augmentation of a vaginal surgical repair with either mesh or graft material did not improve the outcomes of women with POP.

Adverse events after surgical procedures for pelvic floor disorders. In Scotland, Morling and colleagues performed a retrospective observational cohort study of first-time surgeries for SUI (mesh or colposuspension; 16,660 procedures) and prolapse (mesh or native tissue; 18,986 procedures).

After 5 years of follow-up, women who underwent midurethral mesh sling placement or colposuspension had similar rates of repeat surgery for recurrent SUI (adjusted incidence rate ratio, 0.90; 95% CI, 0.73–1.11). Use of mesh slings was associated with fewer immediate complications (adjusted relative risk, 0.44; 95% CI, 0.36–0.55) compared with nonmesh surgery.

Among women who underwent surgery for prolapse, those who had anterior and posterior repair with mesh experienced higher late complication rates than those who underwent native tissue repair. Risk for subsequent prolapse repair was similar with mesh and native-tissue procedures.

Authors' commentary. The researchers noted that their data support the use of mesh procedures for incontinence but additional research on longer-term outcomes would be useful. However, for prolapse repair, the study results do not decidedly favor any one vault repair procedure.

WHAT THIS EVIDENCE MEANS FOR PRACTICE

These studies highlight the prevalence of pelvic floor disorders and underscore the need for evidence-based treatment strategies. Women with symptomatic pelvic floor disorders initially should be offered conservative options and education. Although mesh grafts certainly have expanded the surgical options for managing pelvic floor disorders, they should be used with caution transvaginally for primary prolapse repairs. Because of the complexity of POP and its treatment, it is reasonable to refer patients with the condition to a specialist experienced in female pelvic medicine and reconstructive surgery.

›› MEADOW M. GOOD, DO

FAST TRACK

In the PROSPECT trial, outcomes for effectiveness, quality of life, and adverse effects were not improved in women who had augmention of a vaginal surgical repair for POP with either mesh or graft material

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