The use of prostheses for pelvic reconstructive surgery: joy or toy?

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摘要

Abstract

The high recurrence rate of pelvic organ prolapse (POP) of up to 30% after pelvic reconstructive surgery makes a more refined surgery imperative, as well as the need for either biological or synthetic prostheses as adjuvant treatment. Patients with recurrence risks may benefit from the adjuvant treatment: (1) to substitute for the lack of supportive tissue; (2) to reinforce inadequate tissue; (3) to induce new supportive tissue; and (4) to consolidate and complement the insufficient surgical techniques. However, some debatable issues in use of the prosthetics remain. The use of prosthetics enables the simultaneous repair of all vaginal defects of POP and concomitant anti-incontinence surgery to be faster, easier and more precise. Nevertheless, great care should be devoted to the actual and theoretical short- and long-term risks, many of which have not been fully elucidated. Despite the lack of various ideal characteristics, the type I monofilament, macroporous polypropylene, has been suggested to have the lowest incidence of infection and erosion among the nonabsorbable prostheses. There is good evidence to support the use of nonabsorbable synthetic mesh for abdominal sacrocolpopexy, while the use of prostheses for repairing isolated anterior and posterior compartment defects remains controversial. There have been no long-term studies with sufficient patient numbers to prove whether synthetic or biological prostheses are superior during vaginal surgery. Tension-free vaginal mesh techniques with procedural kits are being adopted increasingly, despite the paucity of data. Although short-term follow-up studies have shown tension-free vaginal mesh to be a safe and effective technique to correct POP, anatomic and functional results of long-term follow-up studies, however, have not yet confirmed the effectiveness and safety. Mesh erosion remains a concern, with variable rates according to different materials and approaches. Newly developed prostheses offer an alternative option to pelvic reconstructive surgery. However, some questions remain: (1) Should prostheses be considered for primary repairs, secondary repairs, or solely in patients with risk factors for recurrence? (2) Which prosthetic material is better: synthetic or biological ones; absorbable or nonabsorbable ones? (3) Do the benefits of prosthetics in pelvic reconstructive surgery outweigh the risks of complications? These questions are explored and reports in the

literature reviewed