CORRESPONDENCE

Evidence-based Hernia Treatment in Adults

by Prof. Dr. med. Dieter Berger in issue 9/2016

Individual Study Particularities Need to Be Considered

Chronic postoperative pain affects 2–12% of patients after an inguinal hernia repair procedure. In 2004, Neumayer (1) reported a nationwide study based in the USA comparing laparoscopic and open hernia repair procedures in which the study results varied substantially depending on whether specialized centers were involved.

The individual study characteristics—for example, whether the control group is appropriate or whether sufficient prophylactic analgesia has been given—are crucial for the results. The occurrence of complications, such as chronic pain, depends on numerous factors—for example, the surgeon's experience, the length of the surgical procedure, and patient-related factors. The isolated recommendation that preventive measures consist of using endoscopic/laparoscopic techniques (2) requires further interpretation with regard to the criteria of the evidence.

Laparoscopic procedures are associated with a higher risk of complications (chronic pain), as shown by national registry studies in 2012 and 2015 (3, 4), but these studies were regrettably not considered. It is evident that pain occurs after laparoscopic procedures. There is no other explanation for the fact that so many studies exist that aim to reduce pain and report to have shown this to a significant extent. In order to prove pain reduction in a significant way, the pain has to occur frequently and be of a sufficiently severe nature. Some surgeons achieve good results when using laparoscopic approaches, and these also exist for open procedures. Finally, there may be very valid reasons for not turning a disorder located outside the abdominal cavity (posterior wall defect, isolated nerve compression) into a disorder of the abdominal cavity by using a surgical technique, with all the consequences that this might entail (adhesions, injury to the bowel and large vessels). An isolated recommendation for using laparoscopic herniotomy to prevent pain should be avoided without considering the available evidence.

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A Need for Catching up in Testing Meshes

At the present time, any categorical recommendation for mesh-based hernia repair can be made only subject to certain caveats (1). Unanswered questions on the biocompatibility of meshes remain, and this on the background of possible physical reactions to foreign bodies, which make later procedures, such as lymphadenectomy, vascular reconstruction, or radical prostatovesiculectomy, difficult or even altogether impossible. Hydrocele, varicocele, spermatic cord irritations, ilioinguinal pain syndromes after mesh implantations are not rare. And why would they be, in view of the occasionally catastrophic results after using the same alloplastic materials in prolapse surgery in women (2).

We currently have an urgent need to catch up in the already widespread use of meshes and require:

a) A system of tests to ascertain the biocompatibility of meshes (3)
b) Valid studies before mesh materials are used clinically (4)
c) A compulsory, cross-disciplinary implant registry for the purpose of evaluating long term effects, such as is already being called for in the federal government's national strategy process.

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