Journal of Visceral Surgery (2016) 153, 461—464

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SURGICAL TECHNIQUE

Surgical management of chronic mesh infection following incisional hernia repair

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Available online 15 November 2016

KEYWORDS
Chronic mesh infection;
Retromuscular mesh repair;
Incisional hernia repair

Mesh infection is one of the main complications of mesh incisional hernia repair. The prevalence ranges from 0.2% to 8% according to different series. Infection can occur immediately after operation often presenting acutely as an abscess (fever, redness, seeping from the incision, laboratory findings of an inflammatory syndrome) or after a prolonged interval of several months or even years, presenting with low-grade general and local signs and a purulent discharge at the level of a fistulous orifice near the mesh. Most often, commensal skin germs are found (*Staphylococcus aureus*, and *epidermidis*).

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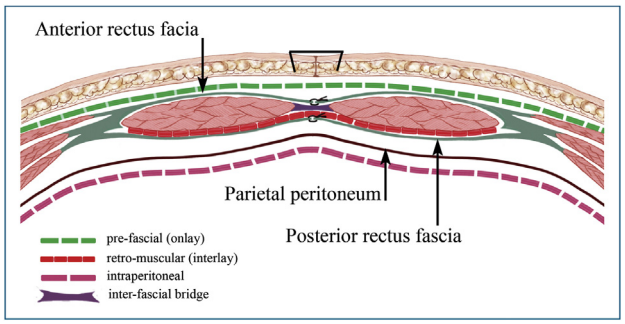
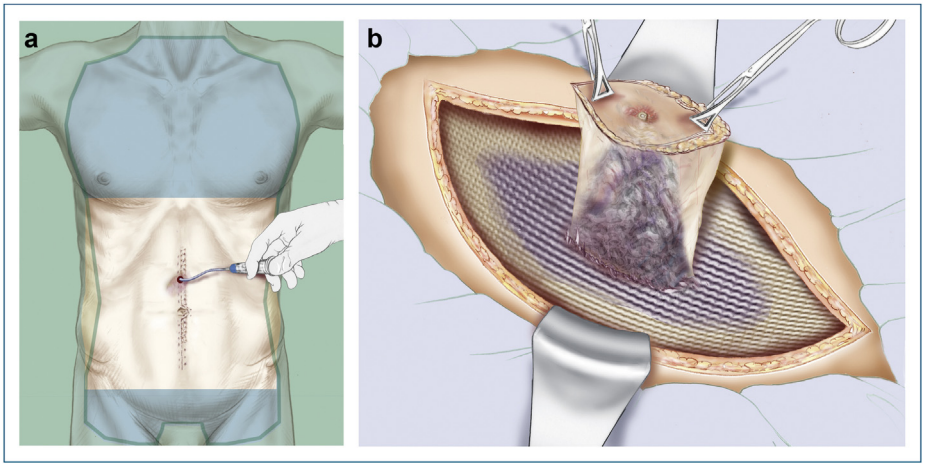
http://dx.doi.org/10.1016/j.jviscsurg.2016.09.007

1 Transverse cross section of the abdominal wall with retromuscular mesh showing the various potential positions for prosthetic mesh placement



In case of chronic sepsis, after several failed attempts to preserve the repair, the only therapeutic solution is to excise as much of the infected material as possible, guided by injection of indigo carmine blue into the fistulous track.
We present, as an example, an illustration of the repair of a midline ventral hernia for which the mesh can be positioned in various planes: anterior to the midline fascia (onlay); bridging the defect between the two rectus sheaths replacing the linea alba (inlay); between the rectus muscles and the posterior rectus sheath (sublay); or in an intraperitoneal position (underlay).



2 Injection of indigo carmine blue into the fistula tract and excision of the tract

The patient is positioned supine. The fistula tract is swabbed to obtain material for bacteriology and, later, during the operation, excised pieces of the mesh are also sent for bacteriologic investigation.
The goal is to remove all tissues and material stained by the dye.
The first step of the operation is to inject indigo carmine blue into the fistula tract with a short catheter
An elliptical cutaneous excision is made, centered on the fistulous orifice, then the excision continues deeper, along the limit of colored tissues, until reaching the plane of the mesh