Technical Section

TECHNICAL NOTES AND TIPS

Immediate implant-based breast reconstruction using bovine pericardium (Veritas®) for optimal tissue regeneration

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Use of a povidone-iodine sponge to protect skin and prevent K-wire infection

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BACKGROUND

Biological material has been used extensively to form the lower and lateral part of the subpectoral pouch in immediate implant-based breast reconstruction. Porcine dermal allografts are commonly used for these procedures but are associated with postoperative red breast syndrome. The use of bovine pericardium, Veritas® (Synovis, Deerfield, IL, US), has been shown to be successful in a variety of situations, and is marketed for its strength and ease of use. We describe its use in implant-based breast reconstruction.

TECHNIQUE

A skin-sparing mastectomy is performed with the development of a subpectoral pouch. This includes releasing the inferior attachments of the pectoralis major to develop this tissue plane. The Veritas® is sutured on to the inferior border of the pectoralis major and on to the serratus anterior laterally using a 3/0 polyglycolide suture, leaving an opening inferiorly. The implant is placed into this pocket and a suction drain is placed in the cavity. The inferior border is then closed. Skin closure is undertaken with a standard subcuticular technique.

DISCUSSION

We have performed this technique in seven patients (twelve breasts: two unilateral and five bilateral procedures) in the past six months. There have been no significant complications and the aesthetic results have been acceptable. Its advantages are that no prior preparation is necessary with Veritas® and that it is easy to handle. Its adoption has reduced the incidence of red breast syndrome (1 out of 12 [8.5%]) compared with our baseline results with porcine allografts (30%) for creation of the subpectoral pouch.

Statement

All products were purchased and the authors have no commercial involvement with the manufacturer or any other conflicts of interest.

Common complications associated with percutaneous K-wires include infection and migration of the wires beneath the skin, causing soft tissue damage and potentially necrosis. To prevent these complications, we remove the sponge from a scrubbing brush (which is available in every hospital), soak it in povidone-iodine and pass the sponge over the bent wire so that it is held firmly onto the skin. This provides antiseptis and stability at the wire-skin interface. As the sponge dries it conforms to the skin and provides a soft but effective barrier to stop the wire migrating beneath it (Fig 1).

Figure 1 K-wire passed through a povidone-iodine soaked sponge