Cancer reconstruction following prior augmentation mammaplasty: a novel technique for reconstruction using preexisting capsule

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ABSTRACT

PURPOSE:

As the rate of augmentation mammaplasty has increased, so too has the likelihood of breast cancer detection in the augmented patient population. As such, more attention is being paid to cancer treatment and reconstruction in patients with preexisting cosmetic implants, specifically with reference to surgical technical factors. We describe a novel reconstructive technique: using a patient's existing capsule as an anatomic plane for placing tissue expanders and permanent implants, in women whose cancer status requires mastectomy.

METHODS:

Patients with cosmetic saline or silicone implants who underwent mastectomies for breast cancer treatment were retrospectively collected. Patients who opted not to have immediate one- or two-stage implant-based breast reconstruction were excluded. Capsule-preserving mastectomies were performed with the implant still in place; next, preexisting implants were explanted; and finally, tissue expanders or permanent implants were inserted within the preexisting capsule. Outcomes, including aesthetic acceptability, breast flap viability, and wound complications, were assessed postoperatively.

RESULTS:

Over 20 patients with prior augmentation mammaplasties underwent mastectomies and immediate implant-based reconstruction with immediate tissue expander reconstruction and subsequent exchange for permanent implants, or single stage breast reconstruction. All patients demonstrated aesthetically acceptable results with no evidence of breast flap necrosis or wound complications in post-operative follow up. Our figures illustrate a step-by-step approach to the novel capsule-sparing technique utilized.

CONCLUSION:

In women with breast implants who require mastectomies, use of the existing capsule as a pocket for tissue expanders or permanent implants is a safe, effective, and aesthetic technique for breast reconstruction.

Figure 1: 48 year old female patient immediately status post right breast capsule-sparing, nipple-sparing mastectomy and explantation of a previously placed submuscular cosmetic implant.

Figure 2: Though all glandular breast tissue has been removed, the capsule surrounding the patient's previously placed cosmetic implant has been spared.

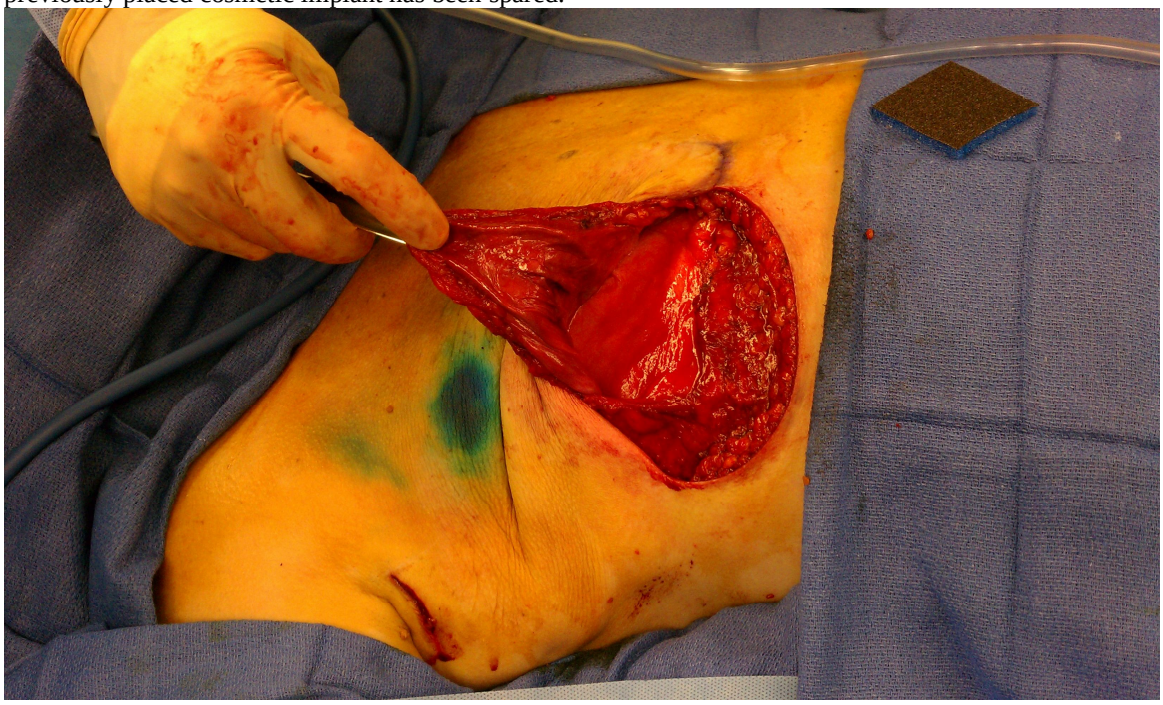

Figure 3: Demonstration of the patient's intact capsule

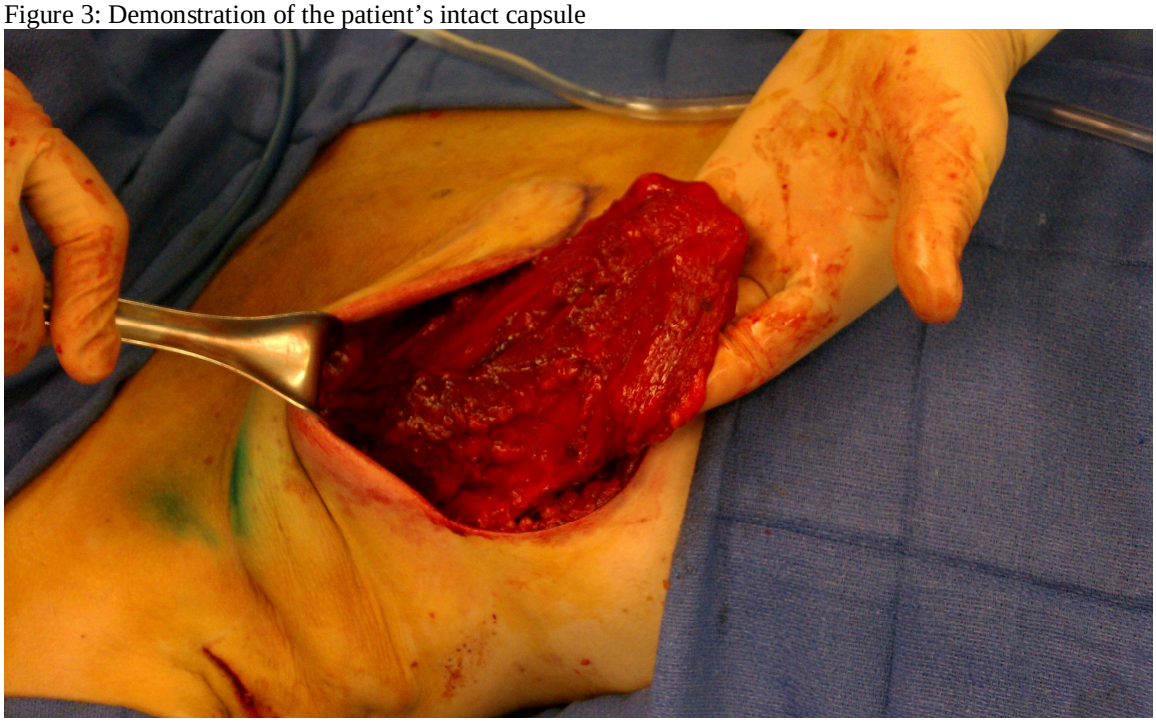

Figure 4: A tissue expander is placed in the plane beneath the patient's capsule and pectoralis major muscle.

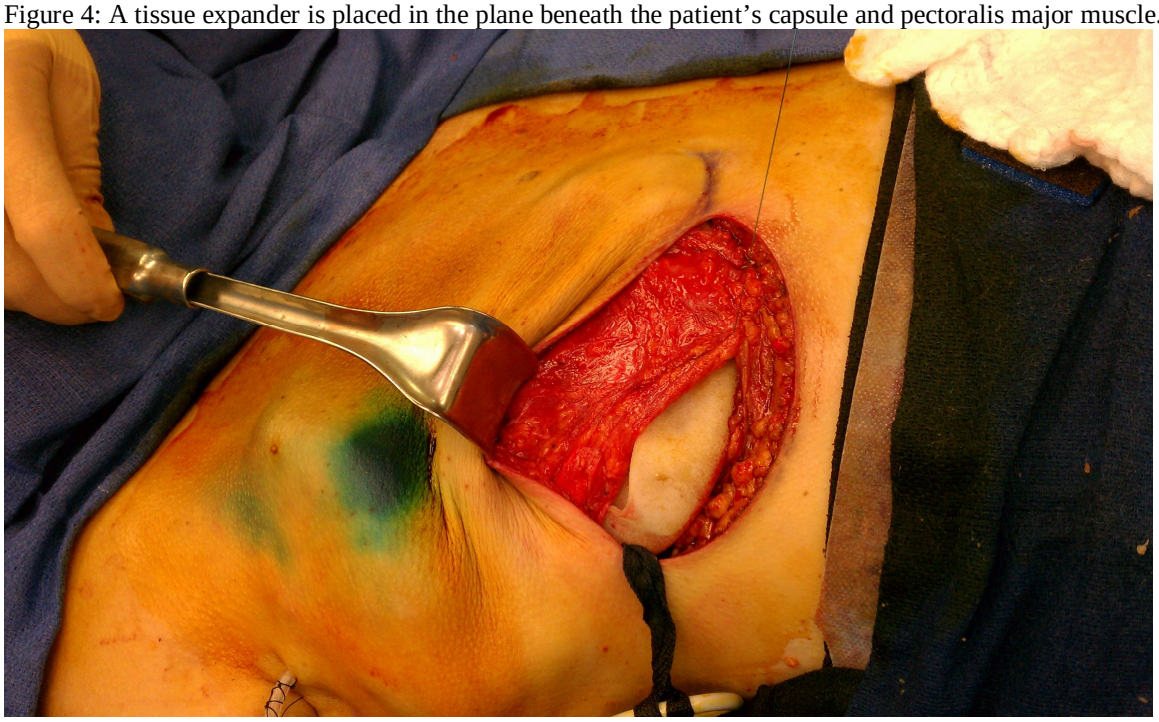

Figure 5: The plane is closed with complete coverage of the tissue expander using the patient's capsule and muscle.

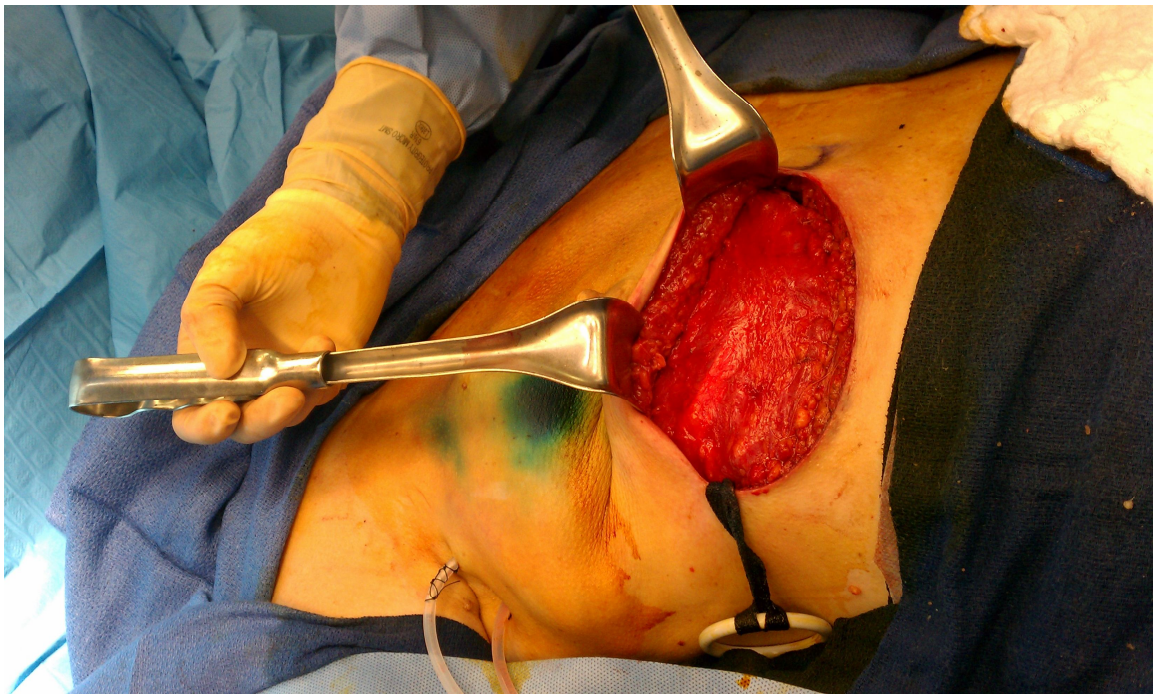

Figure 6: The wound is closed in layers.