

Prevention of Capsular Contracture

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The incidence of capsular contracture in our practice has decreased from approximately 20 percent to less than 2 percent in our primary breast augmentations over the last 15 years. We believe that the following protocol has been instrumental in causing this change.

PREOPERATIVE PLANNING

Submuscular Placement

A total of 95 percent of implants are placed under the muscle. The placement of the implant in the submuscular plane allows for constant massage, decreased potential contamination of the implant through the breast ducts, and less chance of hematoma formation. This is because of the decreased vascularity of the submuscular plane as compared with the subglandular plane.¹ Although we cannot report exact statistics, we have found that the majority of capsular contractures have been in subglandular augmentations.

Smooth Implant

As infection is one of the leading causes of capsular contracture,² we feel that a smooth implant surface results in less bacterial adherence and, therefore, less potential for contracture. Although textured implants have reportedly resulted in less capsular contracture,^{3,4} we have not noticed a significant difference.

Adjustable Implant

An adjustable implant (Spectrum, Mentor Corp., Goleta, Calif.) allows for overexpansion of the pocket and later volume reduction. Overexpansion is maintained in most patients for several weeks, and it seems to lessen the incidence of capsular contracture. Should a capsular contracture occur, a closed capsulotomy is performed, at which point the implant

is overexpanded for 2 to 3 months, allowing a new, expanded capsule to form. The implant is then deflated to its normal size, which usually results in softening of the capsule. When a capsular contracture is being treated or an implant is being replaced, the ability to expand residual scar tissue has proven to be extremely beneficial.⁵

Prophylactic Antibiotics

Perioperative prophylactic oral antibiotics, given for 1 week starting 1 day before surgery, help to prevent infection (500 mg of Keflex four times a day or 500 mg of Cipro twice a day if the patient is allergic to penicillin or cephalosporin). One dose of intravenous antibiotics is given 30 to 60 minutes before surgery (1 g of Ancef or 400 mg of Cipro). Although antibiotics are routinely used for 24 to 48 hours, we feel that any implant can be associated with a seroma, which can be a nidus for bacteria. It is for this reason that we recommend an extended course of 1 week.

Infection Screening

Preoperative screening for infection (complete blood count, urinalysis, and physical examination) is mandatory. Patients are also advised to notify our office with any signs or symptoms of illness within 48 hours before surgery. Appropriate referral is made if necessary, and surgery is rescheduled.

Hematoma Prevention

Hematoma prevention begins with cessation of aspirin and aspirin products, nonsteroidal anti-inflammatory drugs, and vitamin E supplements 2 weeks before surgery. Alcohol is stopped 5 days before surgery because of its potential for vasodilation and interaction with