

Capsular Contracture Rate in Low-Risk Population after Primary Augmentation Mammoplasty—A Retrospective Review

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Introduction: The safety of augmentation mammoplasty has increased dramatically in the last 20 years. Specific advancements in the standard of care include the inframammary, submuscular approach and the use of antibiotic irrigation of the breast pocket.¹⁻⁵ Capsular contracture is the most commonly reported complication described for augmentation mammoplasty. The literature, however, has reported a falsely high incidence of capsular contracture due to the mixing of patients undergoing primary augmentation and reconstructive procedures. We report the incidence of capsular contracture in a very low-risk patient population after primary augmentation utilizing scientifically-validated protocols.

Methods: In our IRB-approved, retrospective study, we reviewed patients from a 5-surgeon practice in Grand Rapids, Michigan. We targeted a specific population of patients who have undergone primary augmentation mammoplasty, without including the secondary augmentation, revision, and reconstructive groups of patients. All patients who presented to Plastic Surgery Associates from 1999 and on whom primary breast augmentation was performed were reviewed. Data was collected from charts of 856 patients. Data points include demographics, functional and aesthetic outcomes, complications, and revision rate and type.

Results: Our overall incidence of CC in a mean follow-up period of 14.9 months was 2.8%. Use of antibiotic irrigation effectively decreased rates of CC from 3.9% to .04% ($p = 0.004$). Transaxillary incision choice was associated with a higher reoperation rate versus inframammary incision (13.1% and 20.8%, $p = 0.017$). Saline implants resulted in higher CC rate than silicone, at 4.3% versus 1.3% ($p = 0.032$). Rate of reoperation was also higher (21.7% and 7.6 %, $p = 0.001$). We did not find a significant association between contracture rate in textured and smooth implants (2.7% and 2.4%, $p = 0.815$). We did, however see a significantly lower rate of reoperation in textured implants (8.2% and 13.8%, $p = 0.032$). Tobacco users had higher rates of contracture versus their non-smoker counterparts (5.5% versus 1.9%, $p = 0.036$) (Figure 1).

Conclusions: Patient populations should not be mixed when examining capsular contracture rates. Nonetheless, primary augmentation patients receive educational materials quoting CC rates of 8-30%. Based on our findings, it is apparent that the early CC rate in primary augmentation can be less than 1%. Furthermore, in order to avoid capsular contracture, which very often requires revision surgery, we highly advocate an inframammary approach, submuscular implant placement, and antibiotic irrigation of the breast pocket.

References:

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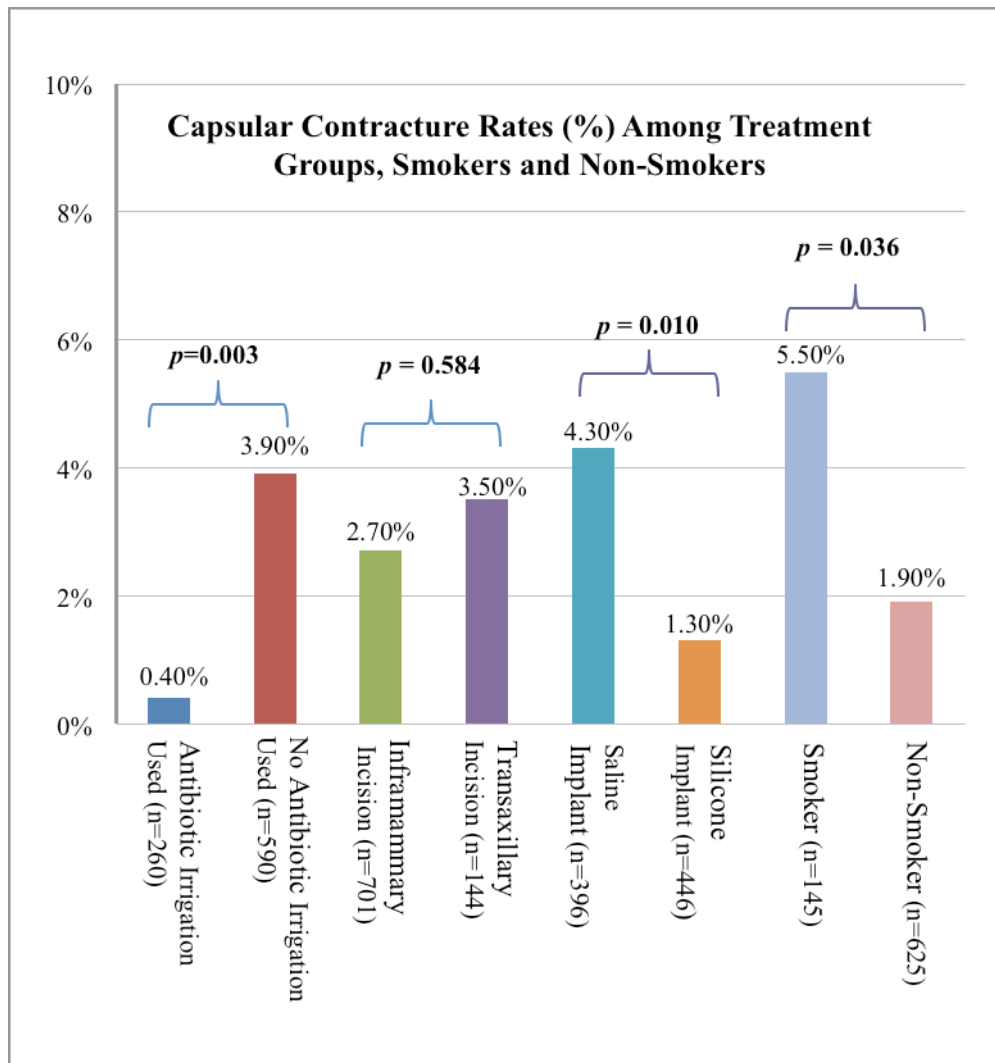


Figure 1. Capsular Contracture Rates Among Treatment Groups, Smokers and Non-Smokers.