

Capsular Contracture: The Perpetual Thorn in the Side of Cosmetic Surgeons

A reproducible regimen to prevent and treat capsular contracture in aesthetic breast surgery

David Henry, D.O., Dennis Alwen, M.D., Jacob Haiavy, M.D., F.A.C.S



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Introduction

Breast augmentation, a prevalent cosmetic procedure, boasts high satisfaction rates, but complications, notably capsular contracture, persist. This fibrotic reaction around implants causes firmness, distortion, and pain, with rates ranging from 2.8% to 20.4% within 5-10 years post-augmentation. Current non-invasive therapies have shown inconsistent results, leading to the gold standard of surgical capsulectomy, implant exchange, and pocket conversion. However, this invasive procedure has a low success rate of 79%, posing serious complications. This study proposes a minimally invasive, multimodal approach to treat capsular contracture and prevent recurrence, challenging the prevalent surgery-first paradigm.

Materials and Methods

Patients diagnosed with capsular contracture (Baker II-IV) from January 2016 to March 2023 were studied. Those with ≥ 3 months follow-up were categorized into treatment or prophylactic arms. Treatment involved Celluma light therapy, breast exercises, and milk thistle. Prophylactic arm included capsulectomy and re-augmentation. The study aims to shift from surgery-centric approaches for capsular contracture.

Results

- 251 patients were identified, 69 excluded:
- 107 patients in the treatment arm
 - 77.5% (83/107) of patients had a reduction of at least 1 Baker grade
 - 17.7% of patients (19/107) improved from a Baker grade III to a Baker grade I
 - 4.7% of patients (5/107) improved from a Baker grade IV to a Baker grade I
 - 69 in the prophylactic arm
 - 92% (63/69) did not have evidence of re-encapsulation and remained as Baker 1

New Proposed VTS staging system

VISUAL:

- 0- Implants well placed, nipple centered over implant
- 1- Implant displaced superiorly 1-2 cm from IMF
- 2- Implant displaced superiorly 3-4 cm from IMF
- 3- Implant displaced superiorly > 4 cm from IMF

TACTILE:

- 0- Implant soft and movable within the pocket
- 1- Implant soft, moves up, does not come down to IMF
- 2- Implant firm, moves up, does not come down to IMF
- 3- Implant firm and not movable

SENSORY:

- | | |
|------------------------|-----------------------|
| 0- No pain | 1- mild pain (1-4) |
| 2- Moderate pain (5-7) | 3- Severe pain (8-10) |

Discussion

A proposed non-surgical protocol, featuring Celluma light therapy, milk thistle, and breast exercises, has proven highly effective for treating and preventing recurrent capsular contracture post-surgery. In our study, recurrent capsular contracture after surgical intervention with prophylactic treatment was 8.7% (6/69) and of these 44% (4/9) were limited to Baker grade II. Additionally, 77.5% of the patients in our study had a reduction of at least 1 Baker grade with medical treatment alone. We propose a comprehensive VTS capsular contracture staging system for standardized assessments. Acknowledging the inconsistent literature on capsular contracture, we advocate for objective measures and highlight ongoing research for potential advancements in treatment and prevention.

Conclusion

The study underscores the imperative need for a comprehensive, multimodal approach to address the multifactorial challenge of capsular contracture. This protocol offers a viable and effective option for clinicians in both the treatment and prevention of capsular contracture.