In-vivo Evaluation of Round Breast Implant in a Stand-Up MRI

Bivik R. Shah, M.D
Clinical Assistant Professor Ohio State University
Columbus Institute of Plastic Surgery

Kevin Delaney, M.D.
Assistant Professor
Medical University of South Carolina
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Background

- Information provided by Manufacturer is limited
  - Implant supine on table
  - Without deformational forces

350-4254BC
425 cc 12.5 cm
(Width) 5.0 cm
(Projection)
Clinically and theoretically, we know size and shape are different in-vivo

- Gravity
- Muscle
- Surrounding Soft tissue
Methods

- Grade 0 or I patients
- Baker I only
- Mild asymmetry
- Pre-op Measurements:
  - Breast width, Skin stretch, N:IMF max stretch, Parenchymal pinch, and Superior pole pinch
- MRI in sitting position with breast coil
MRI Measurements

Point of maximum thickness

C in cm.

Pect. Major MM.

E

B

2

4 cm
Results

• Silicone High Profile
• No Infections, hematoma CC, or bottom out
• Total pts – 23 (46 implants)
• Average time from Surgery to MRI – 11.8 months
• BMI – 20.5
In-Vivo Shape in Upright Position

- In the upright position, has a tear drop shape
  - Projection at 2 cm from superior edge is smaller than predicted for an ellipse
Variance of Implant Projection at 2cm from Predicted

Difference of Projection Between Predicted and Actual

Implant Size (cc)

Avg. Difference of Proj. at 2 cm
Impact of Thickness of Pectoralis Major on Implant Projection at 2 cm

![Graph showing the relationship between thickness of Pectoralis Major and implant projection at 2 cm.](image-url)
Impact of Pectoralis Major Position on Implant Projection

- Difference of Implant Projection vs. Position of Pectoralis Major (from Superior edge Implant)

- Actual - Manu. Projection

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Impact of Skin Stretch on Implant Projection

Difference of Actual and Labelled Projection (cm)

Amount of Skin Stretch (cm)
Conclusion

• Trends
  – Diameter is smaller than reported
  – Projection is higher than reported
  – Location of maximum projection is lower than mid-point.

THANK YOU!