BRIEFCAP CANCER SCREENING GUIDELINES AND NEW IMAGING TECHNOLOGIES

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No Financial Disclosures
Breast Cancer Screening Guidelines:
American Cancer Society Recommendations

- Women age 40-44 have the option to start screening mammography yearly
- Women 45-54 should get a screening mammogram every year
- Women 55-older can switch to screening mammogram every other year if they desire.
- Women over 55 stop mammograms when life expectancy is less than 10 years
- No clear benefit to self exams routinely
- No clear benefit to clinical breast exams by provider
- High risk patients (>20% lifetime risk) should have alternating mammogram and MRI every 6 months starting at 30 years of age.
American Society of Breast Surgeons and American College of Radiology Recommendations

- Average risk women age 40-44 should have a discussion with their provider to assess risk and benefits of early screening.
- Most studies show a decrease in breast cancer mortality from screening starting at 40.
- False positive imaging results are more common in the younger populations.
- Annual or Biennial Screening in women over 55 based on evaluation of risk and benefit.
- Biennial Screening in women over 75 if life expectancy is over 10 years.
Screening vs Diagnostic Study
What to order and when to order it?

- Asymptomatic Patient
  - Screening Mammogram

- Symptomatic Patient
  - Diagnostic Mammogram
  - Typically leads to a diagnostic ultrasound which is ordered by the Radiologist reading the mammogram

- High Risk Patient Asymptomatic
  - Alternating 6 month Screening MRI and Screening Mammogram
Breast Density?

2D vs 3D mammogram: What do I order?

- Breast Density noted on all Tennessee mammogram reports

- Standard 2D mammogram is sufficient in women with low breast density

- In women with dense breast tissue 3D mammography has been shown to be more sensitive and also reduces the call back rates.

- The Radiologist will help your patient decide if Tomosynthesis is beneficial.
2D vs 3D

• Two 2D images of each breast taken vs multiple images of each breast taken and synthesized into a 3D model of the breast.

• Very similar amount of radiation

• Same compression, same positioning, takes a few seconds longer than standard 2D imaging

• Covered fully by most insurances
Coming soon:

- Abbreviated MRI: Low cost method to screen the high risk population. Patients with a risk of breast cancer over 20% in their lifetime.

- Decrease image acquisition time without losing diagnostic accuracy. From 30 minute test to under 10 minute test.

- Faster reading time by Radiologist

- Cost is much lower and is an option for patients who want breast MRI screening but insurance does not cover based on guidelines $350 vs over $1000
Molecular Breast Imaging:

- Nuclear Medicine
- Injection of radioactive tracer which is picked up more efficiently by malignant cells in the breast than by normal cells
- Positioning similar to mammogram
- Concern with amount of radiation required. Up to 15x that of standard mammography
- Not currently part of standard guidelines
When in doubt call breast imaging center to enquire about imaging modalities offered and recommended.

Have conversation with patient regarding risk vs benefit of screening at every age.

Despite guidelines I encourage you to continue clinical breast exams on your patients and educate them on the importance of breast health and self breast exams.
References:

- Janet Cochran Miller (2011, April) Radiology Rounds, 3D Mammography, Mass General Hospital
- The American College of Surgeons Consensus Statement on Screening Mammography (2015, Oct)
NEW TECHNOLOGIES IN BREAST RECONSTRUCTION

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Disclosures

- No financial disclosures
Reconstructive Game Changers

- Biologic Matrices
- Form Stable Highly Cohesive Implants
- Injectable Fat Grafts
- Thoughtful Mastectomy Techniques
- Soft Tissue Envelope Stabilization
- Oncoplastic Surgery
- Immediate Reconstruction
The Bio-Engineered Breast
Form Stable Implants
Hidden Scar Technique

- Incisions
  - IMF + Axillary, Radial
- Breast Shape...NAC Position
- Oncologic Possibility
- Mastectomy Technique / Team Commitment
- On table Angiography
NAC Sparing Technique
NAC Spare with Fat Grafts
“Passot” Auto-Augmentation (AA)

- Option for very ptotic breasts
- Option for obese patient with hypertrophy
- Avoids ADM
- Cost saving
3D NAC with AA
3D NAC, AA, Fat Grafting
ATHENA Implants, Art NAC’s
Expanding Populations
Vertical Inset of the Latissimus Dorsi Flap Improves Reconstruction Aesthetics by Reducing Scar Burden in the “Social Breast”

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Purpose: The skin paddle of the latissimus dorsi flap is typically inset horizontally (VLD) in breast reconstruction. We describe our experience with the vertical inset of the latissimus dorsi (VILD) and its aesthetic benefit.

Methods: We performed a retrospective study comparing the most recent cases of both VLD and VILD, using an anterior-posterior photograph, which was digitally measured and compared from 3 clinically relevant areas: (1) all visible scar ("main view"), (2) scar area above the nipple ("side view"), and (3) scar area above or medial to the nipple ("nipple view"). Demographics and outcomes were statistically compared.

Results: Fifty of the most recent patients receiving VLD or VILD were selected for each group. Average age was 55.6 and 52.6 years (P = 0.53), and average follow-up was 53.1 and 56.7 years (P = 0.39), respectively. The VILD scar length could be decreased by 1.7% in the main view (P = 0.65), 1.9% in the side view (P = 0.60), and 1.1% in the nipple view (P = 0.60) (P = 0.37). There was no statistically significant difference between groups regarding smoking (P = 0.75), diabetes (P = 0.75), body mass index (P = 0.76), smoking (P = 0.40), infection (P = 0.39), or flap necrosis (P = 0.76).

Conclusions: The VILD is a safe and reliable approach to anterior-posterior deformity (main view) and statistically significant reductions in the highly visible side and nipple views. Our study is the first to quantify a reduction in scar burden by using VILD technique.

Key Words: Breast aesthetics, breast reconstruction, latissimus dorsi flap, scar burden, scar measurement

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METHODS

In accordance with ethical standards of clinical research, this study was performed with institutional review board approval from the University of Tennessee College of Medicine Chattanooga.

Patient Population and Data

All patients who received latissimus dorsi flap breast reconstruction by a single surgeon from June 2011 to January 2017 were included. A database of clinical outcomes was prospectively compiled from each patient's medical record, including preoperative and postoperative photographs obtained during clinical consultation and subsequent follow-up. Pre- and postoperative photographs were taken in the usual fashion by the treating surgeon or clinic nurse trained in plastic surgery photography standards. Data points relevant to clinical outcomes in breast reconstruction were collected, including patient demographics, breast surgery history, complications, revision procedures, and visible scar burden. Delayed reconstruction was defined as any complete surgical interruption of the reconstructive process (ie, postmastectomy reconstruction delay or removal of tissue expander/implant without intraprocedural replacement). Photograph analysis was performed by a single surgeon to ensure consistent measurement between groups. Measurements were taken from the patient's reconstructed breast in the case of unilateral reconstruction or from the patient's right breast in patients who had bilateral latissimus flaps.

View Ratios

In order to control for variations in each patient's breast size and unique dimensions, we created a standard ratio to accurately compare digitally measured scar from person to person. For this ratio, the numerator was derived from the digitally measured linear scar from standard anterior-posterior photographs, and the denominator was derived from the distance from sternal notch to mid-inframammary fold (EMINF).

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Anatomic Mechanics

Vertical Latissimus Dorsi
On-Table ICG
Mastectomy Monitoring
ERAS Techniques

Opioid Crisis & TN Legislative Response

Nerve / Plane Blocks
- Liposomal Bupivacaine
- Ropivacaine / Steroids / Precedex

NSAIDS
- Gabapentin

IV Acetaminophen

EDUCATION
Thank You