

The Current State of Post Operative Breast Care

Beth Baughman DuPree MD, FACS
Medical Director
Breast Health Program
Holy Redeemer



Financial Disclosures

- ◉ Faculty/Consultant Ethicon Breast Care
- ◉ Speaker- Myriad Genetics
- ◉ Consultant Precision Therapeutics
- ◉ Speaker Amoena
- ◉ Faculty- CME at Sea



THE AMERICAN SOCIETY OF

Breast Surgeons

Chairman

American Society of Breast
Surgeons
Board of Advocates



THE AMERICAN SOCIETY OF
Breast Surgeons

Board of Advocates Members

- Amoena
- Beat Cancer Boot Camp
- Breast cancer.org
- Breast Cancer Wellness Magazine
- Cancer 101
- Congresswoman Wasserman Schultz
- Feel your Boobies.com
- FORCE <Facing Our Risk of Cancer Empowered>
- Geralyn Lucas author " Why I wore Lipstick to my Mastectomy"
- NCONN National Coalition of Oncology Nurse Navigators
- ONS Oncology Nursing Society
- The Healing Consciousness Foundation

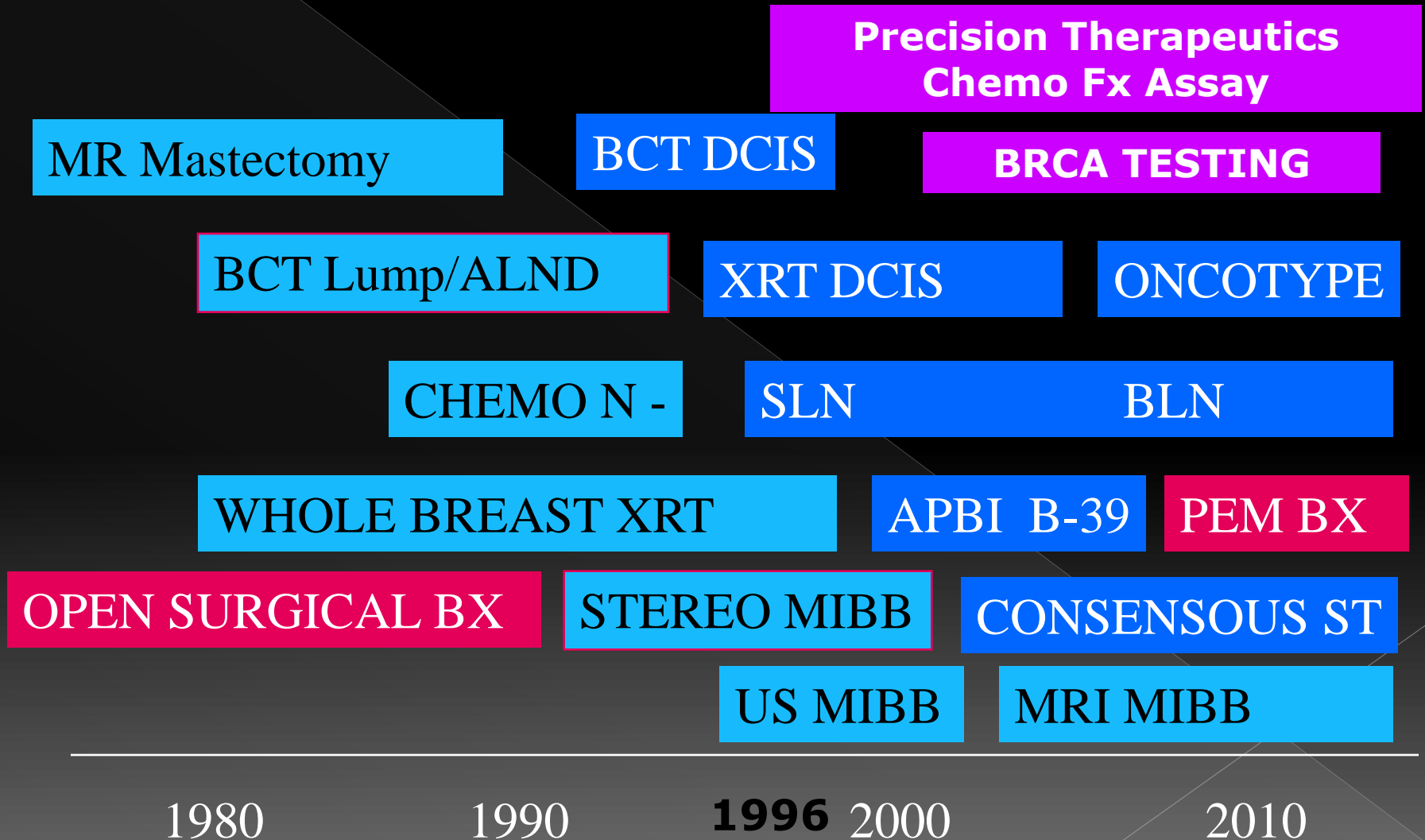
THEN



NOW



The Changing World of Breast Care



Mastectomy Rates Worldwide

- Poland **98** percent
- Spain **66** percent
- United States **56** percent
- The Netherlands **48** percent
- Switzerland **47** percent
- Germany **43** percent
- Italy **41** percent
- Belgium **37** percent
- England **31** percent
- France **28** percent
- France had the *highest breast conservation rate at **72** percent, while Poland ranked last at **2** percent.*

4,700 women with breast cancer in 37 countries.

Central and eastern Europe had the highest mastectomy rate at 77 percent. The United States had the second highest mastectomy rate at 56 percent.

This study was conducted between February, 1998 and February, 2003.

Breast Cancer Treatment Trends

- ◉ Phenomena in the USA
- ◉ ACCESS TO RECONSTRUCTION
- ◉ Increasing incidence of mastectomies
 - INTERNET
 - Early diagnosis
 - RECONSTRUCTION (Implants/DIEP)
 - DX- DCIS found on mammography
 - BRCA TESTING 1996 (commercially avail)

Reasons for No or delayed reconstruction

- ◉ Geography
- ◉ Post mastectomy radiation
- ◉ Access to reconstructive surgeon
- ◉ Lack of patient education

Change in Washington

- ◉ **BRA Project** (Breast Reconstruction Advocacy Project)
- ◉ October 21st, 1998 “Women’s Health and cancer Rights Act” <Dr Christine Horner>
- ◉ All insurers must cover reconstruction
- ◉ Symmetry surgery is covered
- ◉ Entitled to be symmetrical after any breast cancer treatment
- ◉ Cover post operative garments and prosthesis regardless of treatment
- ◉ Lymph edema sleeves Medicare **STILL NOT COVERED!!!**

Designation of Center of Excellence in Breast Care

- ◉ NAPBC Accreditation
- ◉ NCBC Certification
- ◉ ACR / ASBS Certification

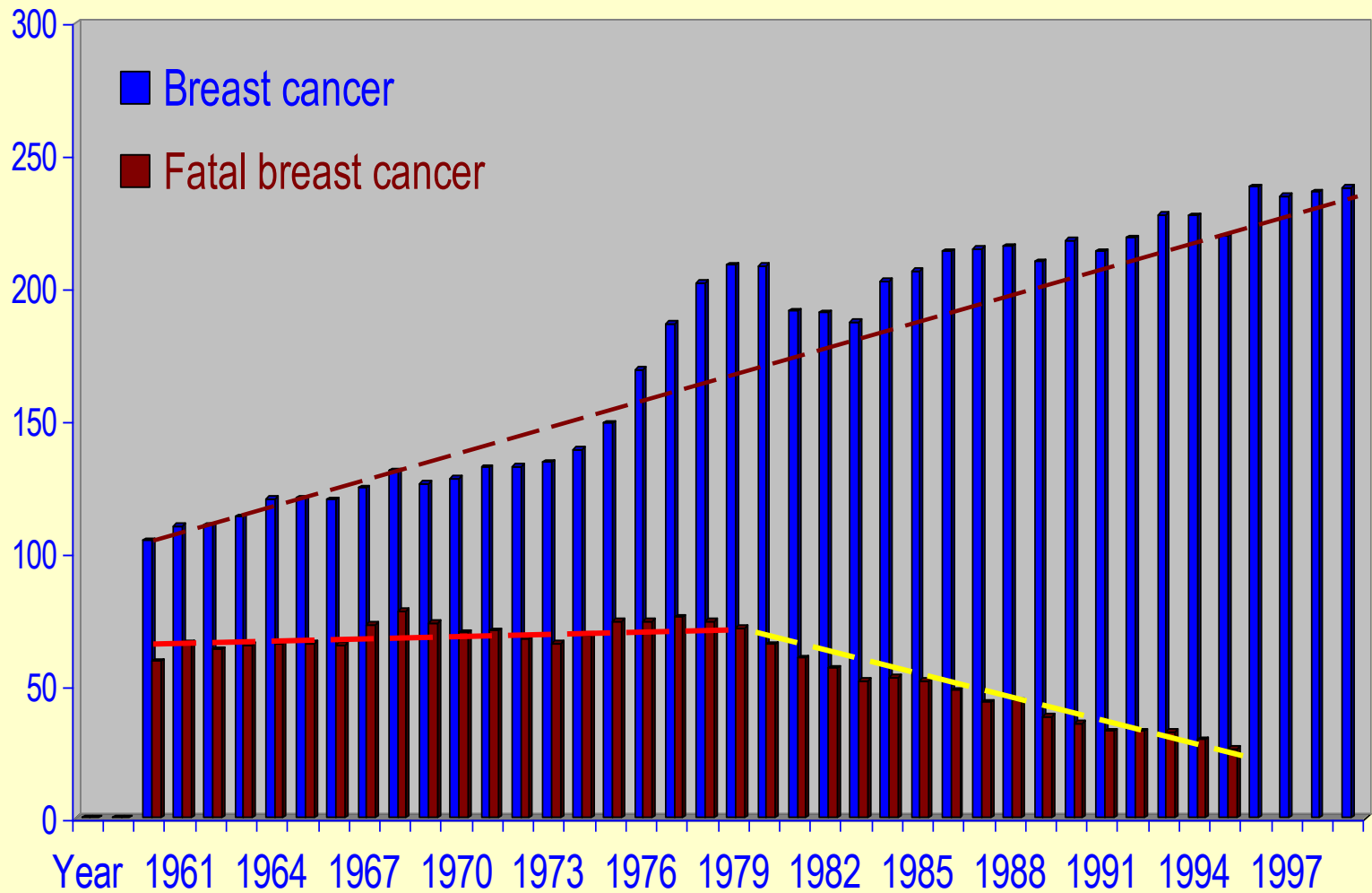
- ◉ Centers of Excellence should provide clear channels for patients to receive their garments and the support they need

Mammography

Mammograms do not prevent breast cancer!

They prevent **DEATH** from breast cancer!

Incidence of all breast cancers *and* incidence of ultimately fatal breast cancers in Dalarna 1960-1999. Age group 40 – 69 at diagnosis. Follow-up until Dec 31, 2003.



40 % decrease death from breast cancer.

Image-Detected Breast Cancer: State-of-the-Art Diagnosis and Treatment

Melvin J Silverstein, MD, FACS, Abram Recht, MD, FASTRO, Michael D Lagios, MD, Ira J Bleiweiss, MD, Peter W Blumencranz, MD, FACS, Terri Gizienski, MD, Steven E Harms, MD, FACR, Jay Harness, MD, FACS, Roger J Jackman, MD, V Suzanne Klimberg, MD, FACS, Robert Kuske, MD, Gary M Levine, MD, Michael N Linver, MD, FACR, Elizabeth A Rafferty, MD, Hope Rugo, MD, Kathy Schilling, MD, Debu Tripathy, MD, Pat W Whitworth, MD, FACS, Shawna C Willey, MD, FACS

In 2001 and 2005, a conference panel comprised of an interdisciplinary group of physicians specializing in the diagnosis and treatment of breast disease met to discuss their experiences with image-detected breast cancer and draft a report detailing points of consensus.^{1,2} A third, similar group (composed of approximately 50% of the members of the first and second groups and 50% new attendees) met in June 2009 to reassess some of the issues debated by the

on these topics. Limited references are given, mainly to point the reader to guidelines and standards created by other groups.

Some modes of diagnosis and treatment discussed by the Panel are widely used in the community; others are considered investigational. The conclusions of the panelists represent the results of their own research, clinical experiences, familiarity with the professional literature, and points of

patients and physicians. All physicians who participated in the conference are listed in the Appendix.

Five basic concepts arrived at during the 2001 conference were reaffirmed in 2005 and were again accepted. These include describing disease using objective measures, such as size, grade, nodal status, biologic markers, etc; the ability of screening mammography to reduce breast cancer mortality, at the price of requiring additional tests and possible overtreatment of some women; the progressive nature of breast cancer and the value of early detection in widening treatment options and improving outcomes; the highly variable growth rate and phenotypic evolution of breast cancers; and the benefits of early recognition and adequate treatment of ductal carcinoma in situ (DCIS). Other relevant issues considered in the previous consensus conferences were readdressed and revised to account for advances and new information in the intervening 4 years. The remainder of this article will present the Panel's conclusions

Disclosure Information: Nothing to disclose.

From a consensus conference focusing on nonpalpable image-detected breast cancers held in Newport Beach, CA. The conference was sponsored by the University of Southern California and supported by an educational grant from Ethicon Endo-Surgery, Inc.

Received July 13, 2009; Accepted July 20, 2009.

Correspondence address: Melvin J Silverstein, MD, FACS, Hoag Breast Center, Hoag Memorial Hospital Presbyterian, One Hoag Dr, PO Box 6100, Newport Beach, CA 92663.

IMAGING AND BIOPSY

General statement

The Panel uniformly agreed that the training, experience, and expertise of the radiologist interpreting a breast-imaging examination are of paramount importance. It endorsed continued subspecialization and regular continuing medical education for any radiologist interpreting breast-imaging studies.

There was extensive discussion regarding the portability of digital breast-imaging examinations. The lack of standardized formatting is a universal frustration that can lead to needless repetition of examinations and even biopsies. The Panel encourages the relevant accrediting bodies to work with vendors to standardize this technology. Facilities performing breast-imaging should promptly provide those images and the software to view them to a patient or medical facility requesting them at a nominal fee or at no charge.

Mammography

Mammography currently remains the only imaging modality that is recommended for routine screening for breast cancer in the general population. To be successful in reducing breast cancer mortality, screening mammography must be performed on a regular basis, as shown in numerous randomized controlled trials. The Panel supports the cur-

Imaging and Biopsy –Ultrasound

- ◉ Ultrasound is a diagnostic /interventional tool
- ◉ Automated whole breast US may facilitate screening US in the future
- ◉ Axillary US for suspicious or malignant lesion in the breast
- ◉ US guided axillary FNA for an abnormal node (? clip placement)

Consensus III Conclusions

- ◎ **“Minimally invasive breast biopsy is the optimal tissue acquisition method and the procedure of choice for image detected breast abnormalities.”**

Interventional Biopsies

- ◉ US guides Vacuum assisted
- ◉ Stereotactic
- ◉ MRI Guided Vacuum assisted biopsies

TREATMENT

- ◉ SURGICAL (LOCAL)
 - ◉ RADIATION (LOCAL)
 - ◉ CHEMOTHERAPY (SYSTEMIC)
- TUMOR SIZE
- NODAL STATUS (Cytokeratin+/-)
- ER/PR HER2-NEU
- ONCOTYPE /MAMMOPRINT

SURGICAL TREATMENT

- Halstead Mastectomy with skin grafting
- Modified Radical Mastectomy
- Reconstruction offered delayed
- ***Skin sparing Mastectomy with immediate reconstruction***
- Lumpectomy Axillary node dissection with whole breast irradiation
- ***Lumpectomy Sentinel Lymph node biopsy***
- ***Partial Breast irradiation***

The History of Randomized trials in Breast Cancer

NSAPB B04 1971

- ◎ 5 treatment arms
 - Palpable LN – Halsted radical mastectomy
 - MRM with XRT
 - Total mastectomy (delayed ALND if nodes recur)
 - + Palpable LN -Halsted radical mastectomy
 - MRM with XRT

NSABP B 04

- ◉ MRM 40 % occult mets in MRM N-arm
- ◉ Mastectomy alone 19% axillary recurrence
- ◉ Survival at 25 years was similar
- * Local treatment of occult cancer in axillary lymph nodes had no effect on over- all survival.

Single Institution SLN trial

- 516 patients
- 10 Yr follow up
- SLN BX alone if –
- SLN BX with ALND when +
- No survival benefit
- .77% regional axillary failure with SLN alone (102 months)

20011 Accrual ended in 2004

- T1 T2 clinically – axilla
- 1-2 SLN with mets on, FS, TP or H and E
- SLNBX alone
- SLNBX followed by ALND
- All lumpectomy all Whole Breast XRT
- 96-97% women received Chemotherapy

The Trial 891 patients

445 Randomized to receive
ALND
420 Received ALND as
randomized
25 Withdrew prior to surgery

446 Randomized to receive
SLND alone
436 Received SLND alone as
randomized
10 Withdrew prior to surgery

92 Lost to follow-up
2 Discontinued intervention
1 Refused after randomization but prior
to surgery
1 Consent obtained after patient
registered

74 Lost to follow-up
3 Discontinued intervention
2 Refused after randomization but
prior to surgery
1 Opted for alternative therapy

420 Included in primary
analysis
25 Excluded (withdrew
prior to surgery)

436 Included in primary
analysis
10 Excluded (withdrew prior
to surgery)

Z0011

- SLNBX alone (2 nodes)
- SLNBX followed by ALND (ave-17 nodes)
- ALND group 27% had additional + nodes
- 6.3 yr FU survival
 - SLNBX 92.5%
 - ALND 91.8%

Findings

- They anticipated 5 yr survival of 80% but >91 % overall survival in women with + nodes
- tangential-field whole-breast radiation therapy (Level I and some Level II)
- “ Taken together, findings from these investigators provide strong evidence that patients undergoing partial mastectomy, whole-breast irradiation, and systemic therapy for early breast cancer with microscopic SLN metastasis can be treated effectively and safely without ALND”

Findings

- 5 year disease free survival
- SLN-83.9%
- ALND-82.2%

What does it all mean?

- Systemic therapy is not changed based on # nodes + (except in small sub group)
- In a clinically negative axilla
ALND can be safely avoided with microscopically positive SLN when chemotherapy and Whole Breast tangential XRT is used

Authors Conclusion

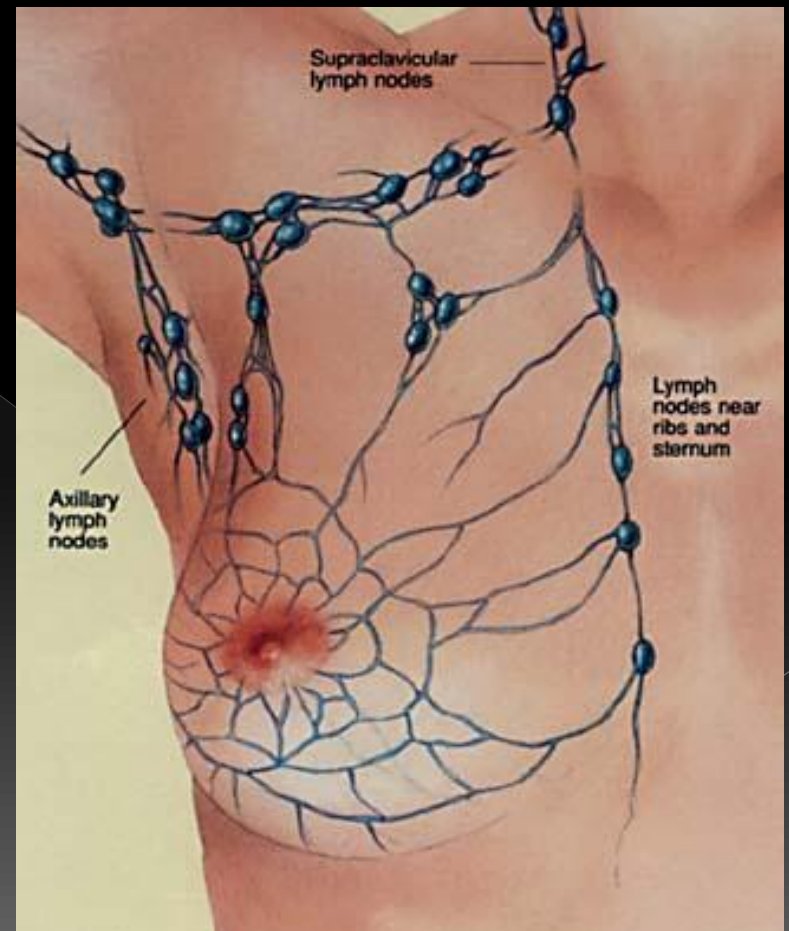
- With +SLN, ALND indicated in APBI, Mastectomy, neo-adjuvant chemo and prone XRT
- “ALND may no longer be justified for women who have clinical T1-T2 breast cancer and hematoxylin-eosin detected metastasis in the SLN and who are treated with breast-conserving surgery, whole-breast irradiation, and adjuvant systemic therapy. Implementation of this practice change would improve clinical outcomes in thousands of women each year by reduce the complications associated with ALND and improving quality of life with no diminution in survival.”

What is not addressed

- ◉ When was axilla staged clinically?
- ◉ Before or after diagnostic BX?
- ◉ Was axilla staged by US?
- ◉ No discussion ER, PR, Her 2 neu
- ◉ Chemotherapy types
- ◉ Anti- estrogen therapy

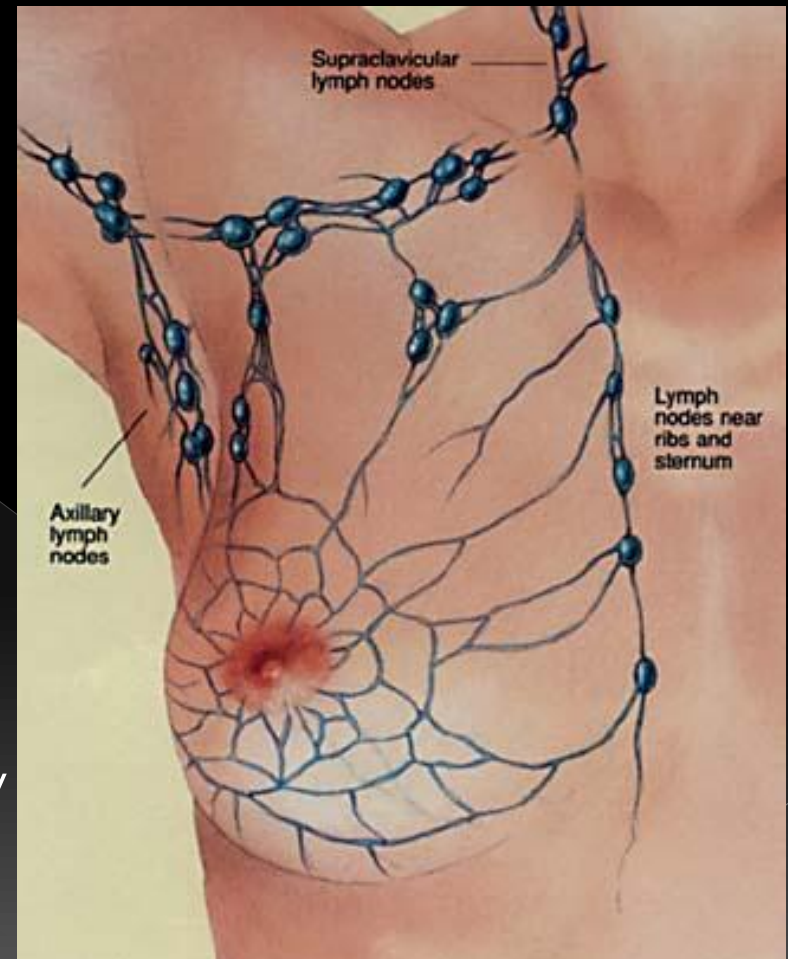
What We Have Learned About Lymphatic Drainage Of the Breast

- The Axilla is the primary drainage basin from all quadrants of the breast
- Lymph edema can be an incapacitating complication
- 3 -10% SLN
- 10-20% ALND
- 25-40% ALND and XRT



What We Have Learned From Lymphoscintigraphy Of The Breast

- Drainage to the Internal Mammary chain occurs in 20% of patients
 - > May occur from a tumor in any quadrant
 - > Most often seen in lower inner quadrant tumors
 - > Seen more frequently in younger patients



Radioactive Nucleotide Technique Of SLN Mapping

Neoprobe Gamma Counter



Despite Surgical Advances

- ◉ Lymph edema is still a persistent problem
- ◉ Clinical
- ◉ Sub-clinical

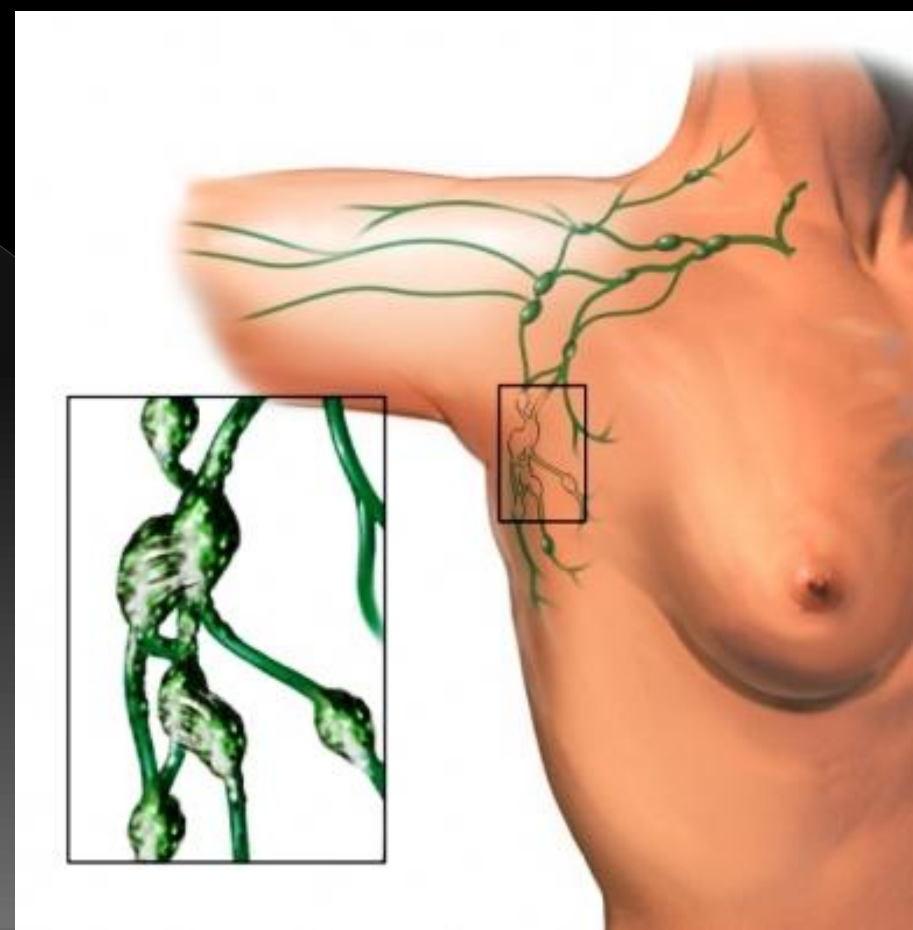
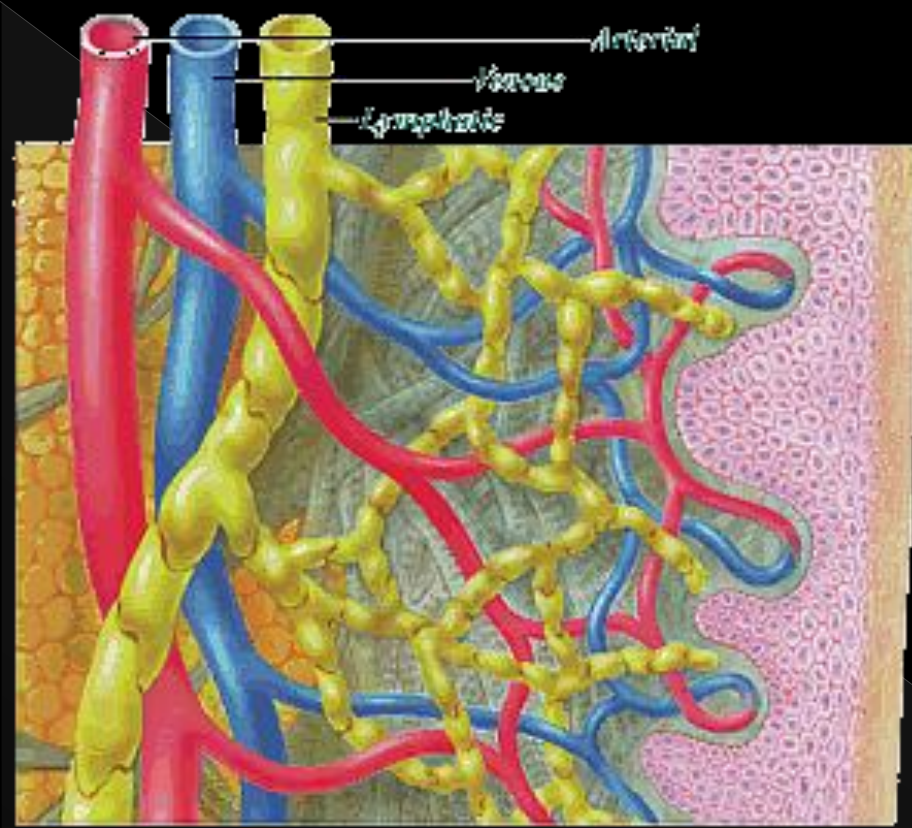
Causes of Lymph Edema

- ◉ Infections with parasites such as filariasis
- ◉ Injury
- ◉ Radiation therapy
- ◉ Skin infections such as cellulitis (more common in obese patients)
- ◉ Surgical interruption of lymphatics
- ◉ Tumors

Arteries

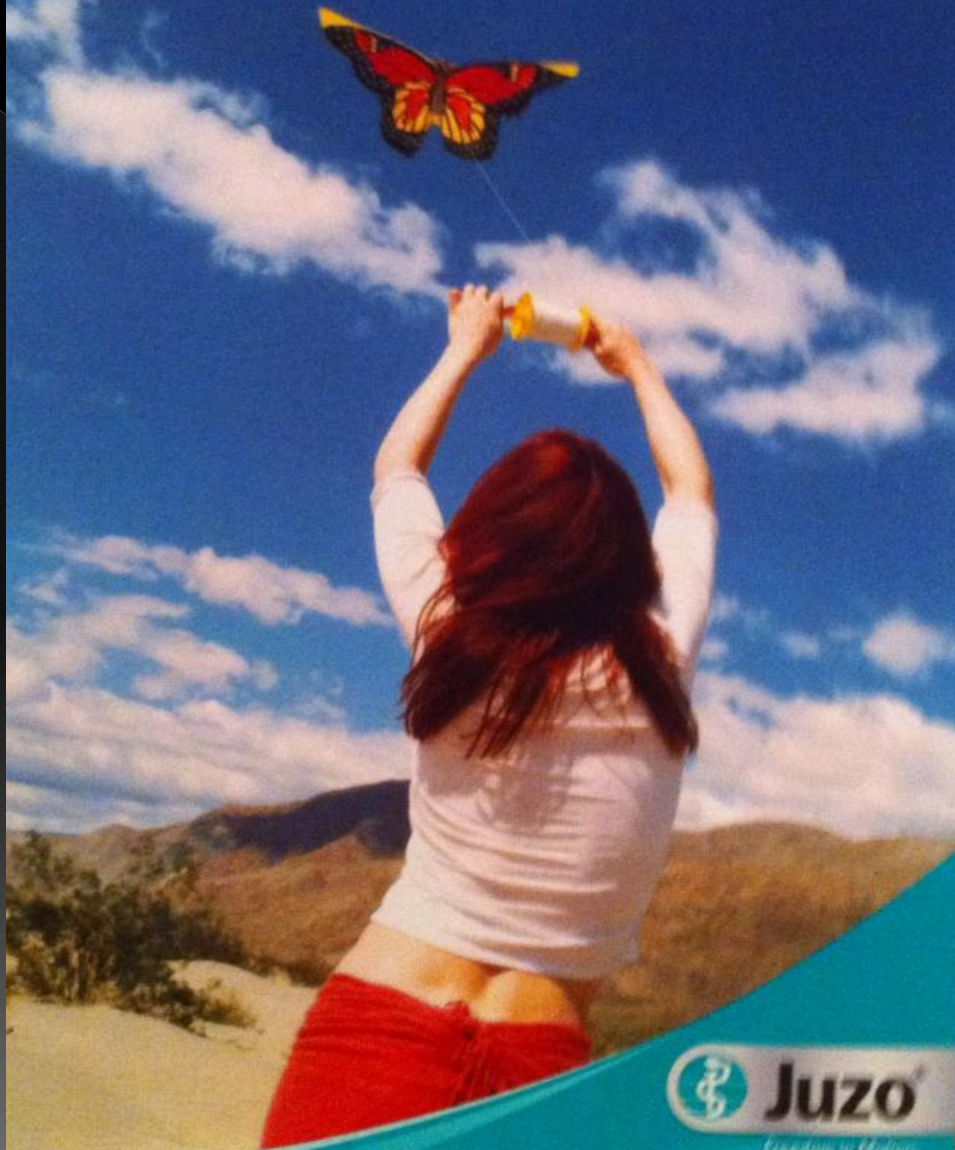
Venous

Lymphatics





What you should know about
Lymphedema



 **Juzo**
Freedom in Motion



Treatment

- ◉ Prevention- Early detection
- ◉ Compression garments
- ◉ Lymphatic pumps
- ◉ Antibiotics initial Cellulitis
- ◉ Bandaging,
- ◉ Skin care and diet,
- ◉ Exercises
- ◉ Manual lymphatic drainage, a gentle form of skin stretching/massage.

Once a Patient has Breast Only Disease

- Accelerated Partial Breast Irradiation
- NSAPB clinical trial underway
 - 6 weeks whole breast
 - vs.
 - 5 days Brachy therapy (3 D Conformal)
- Many patients are being treated off trial
- Recurrence data is very important

APBI Provides:

- Targeted Therapy

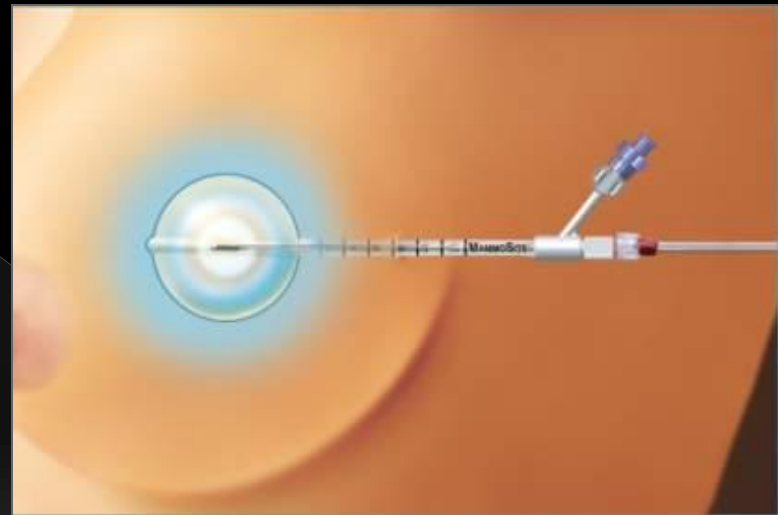
MammoSite RTS places the radiation source inside the lumpectomy cavity, delivering radiation to the area where cancer is most likely to recur.

- Good/Excellent Cosmesis in 88% of Patients

The amount of radiation to healthy tissue is limited reducing the potential for side effects.²

- Reduced Treatment Time

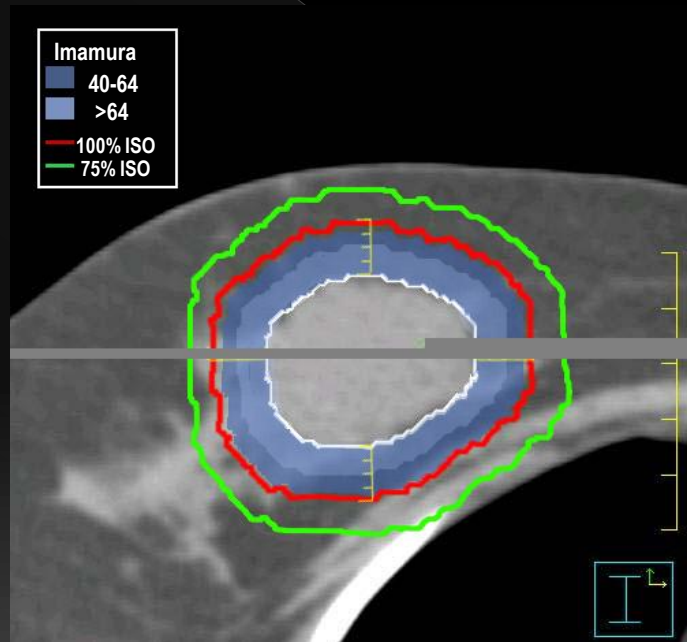
Radiation Therapy can be completed in 5 days.



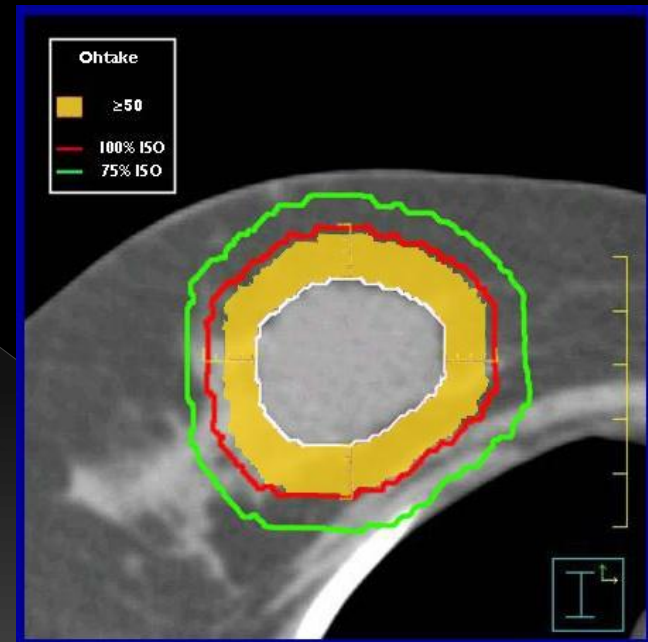
PBI: Scientific Rationale

Is it acceptable to limit radiation to the breast?

Disease Extension



Imamura¹³: Max 8.32 mm



Ohtake¹⁴: Max 7.7 mm

MammoSite Prescription Depth: 1 cm (as indicated above by red line)

ABPI – well supported

- Published data on over 1400 patients
- Low local recurrence rates
- Good/Excellent cosmetic results



37 month follow-up

Whole Breast XRT

- ◉ Skin requires local care
- ◉ Breast size discrepancy often under recognized
- ◉ The breast is vulnerable when undergoing treatment
- ◉ Not all women obtain excellent results



“breast conservation”

- ◉ Asymmetry
- ◉ Pain
- ◉ Fear of underlying disease
- ◉ Imaging issues
- ◉ SHE NEEDS A PARTIAL PROSTHESIS

Prophylactic mastectomy

- ◉ Option for women with BRCA I and II and women with significant family history
- ◉ Option for women with previous or current diagnosis of breast cancer
- ◉ Reduces risk cancer to \approx 2-10%
- ◉ Appropriate choice for selected women
- ◉ Reconstruction is recommended

Breast Reconstruction

- ◉ Tissue Expansion / Implants
- ◉ Immediate Implants
- ◉ TRAM
- ◉ DIEP

Our plastic surgeons are here for more than the cosmetic business !!



Reconstruction Expanders/ Implants



Staged Nipple Areola reconstruction



Staged Nipple Areola Reconstruction



Before and After



Immediate Reconstruction Utilizing A Permanent Implant:

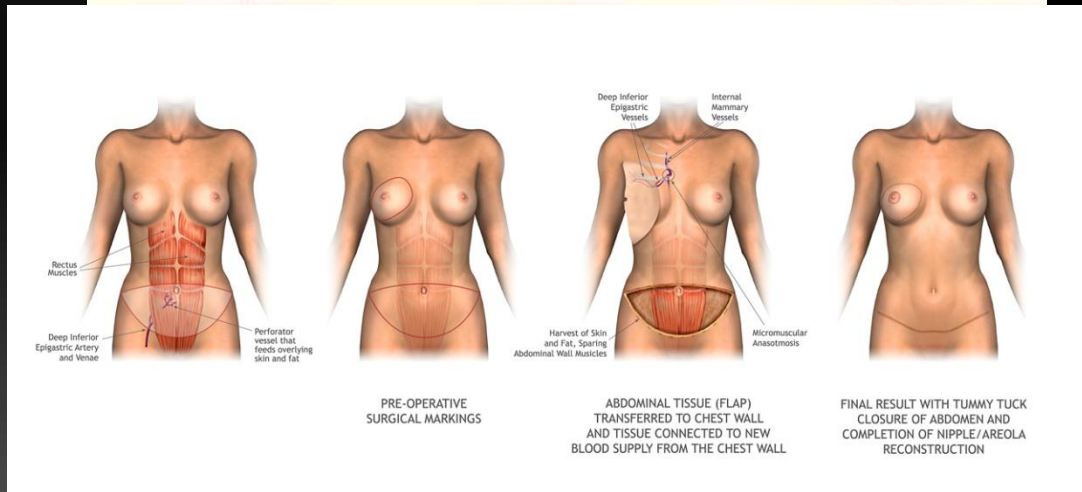
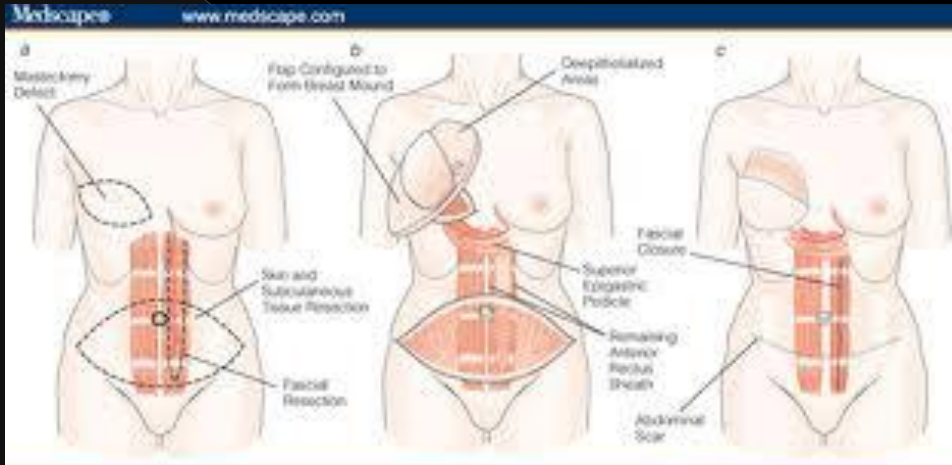
- Patient must have enough skin
- Patient must be willing to be a smaller size than pre-op



Immediate Reconstruction with Silicone Implants:



TRAM DIEP GAP



TRAM Skin Sparring

