RESIDUAL BREAST TISSUE AFTER SKIN-SPARING MASTECTOMY

By

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INTRODUCTION

- Breast cancer is the second leading cause of death in American women
- NCI estimates 192,370 new cases of breast cancer and 40,170 deaths from breast cancer in 2009.
- Breast cancer treatment options:
  - Partial mastectomy followed by XRT
  - Total mastectomy
  - Numbers of mastectomies with reconstructions are trending upward

INTRODUCTION

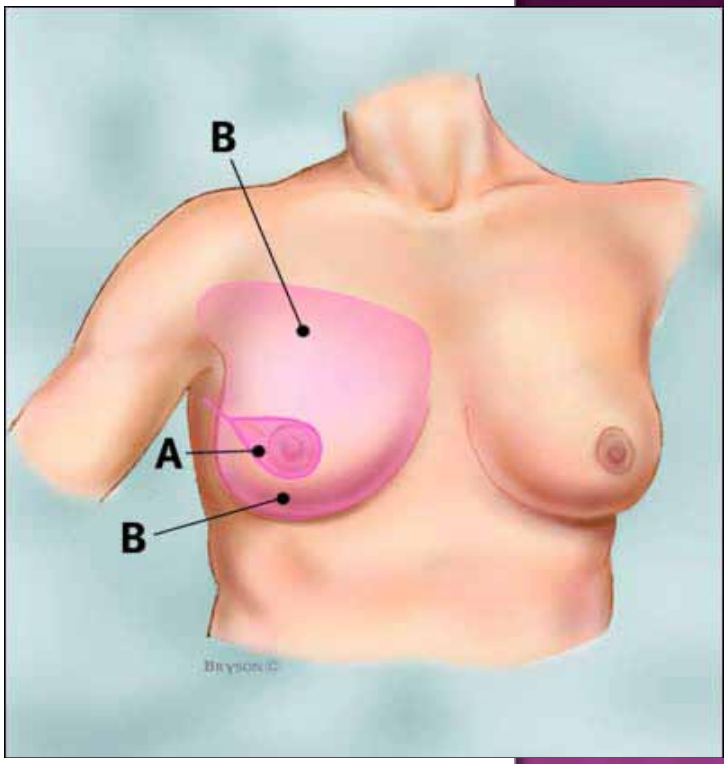
- University of Texas Southwestern Medical Center (**Parkland Health & Hospital System**, St. Paul, Zale Lipshy, affiliated outpatient centers)
- Mission: “. . . promote the health and well-being of individuals and communities entrusted to our care”

INTRODUCTION

- Diverse patient populations
- Approximately 250 patients treated with breast cancer annually
- Benefit the patients of these organizations who are currently undergoing or who may potentially undergo treatment of breast cancer

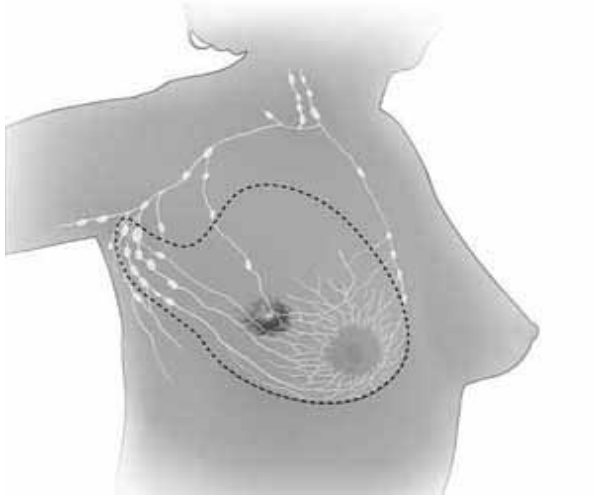
PURPOSE

- Identify the percentage of patients who have breast tissue left behind after skin-sparing mastectomy
- Evaluate the factors that contribute to increased rates of residual breast tissue
- Correlate the incidence of breast cancer recurrence when residual breast tissue is found to be present.



http://www.breastcancer.org/pictures/treatment/skin_sparing_mastectomy/

CONTEXT



- Traditional mastectomy: removal of a large ellipse of skin including nipple/areolar complex
- 1991: first reported skin envelope preservation procedure (skin-sparing mastectomy)
  - Decreases need for additional skin harvesting procedures
  - Improves overall cosmesis

CONTEXT

- Apprehension regarding the oncologic safety of skin-sparing mastectomy
- 70% general surgeons: better cosmetic results
- Minimal data available regarding frequency of residual breast tissue after skin-sparing mastectomy and factors which influence this occurrence
- Prior study: 30% rate of remaining breast tissue in 42 patients undergoing skin-sparing mastectomy

Torresan, R. Z., Cabello dos Santos, C., Okamura, H., & Alvarenga, M. (2005). Evaluation of residual glandular tissue after skin-sparing mastectomies. *Annals of Surgical Oncology, 12,* 1037-1044.

CONTEXT

- Important to identify the overall rate of residual breast tissue, the factors contributing to it, and it's potential in placing patients at increased risk for recurrence
- Research Question: In women diagnosed with breast cancer who have undergone skin-sparing mastectomy, is there a correlation with the presence of residual breast tissue following breast reconstruction surgery and breast cancer recurrence?

PROJECT DESCRIPTION

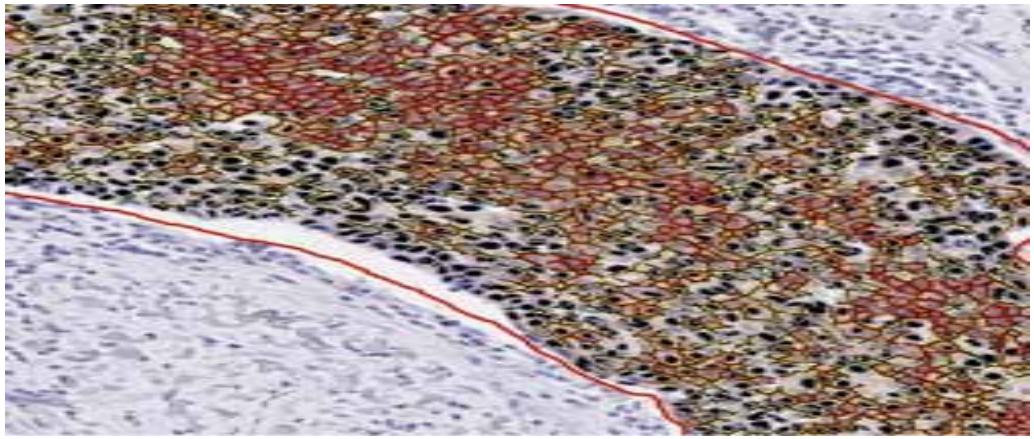
- Goal: evaluate for presence/absence of a correlation in residual breast tissue after skin-sparing mastectomy and the incidence of breast cancer recurrence.
- Objectives:
  - Identify what percentage of breast cancer patients who have undergone skin-sparing mastectomy have breast tissue left behind
  - Evaluate/identify what specific factors contribute to increased rates of residual breast tissue

PROJECT DESCRIPTION

- Methodology
  - Review of plastics registry to identify patients who underwent reconstruction with the use of tissue expanders between August 2005 and May 2009
  - Retrospective chart review for patients who underwent skin-sparing mastectomy

PROJECT DESCRIPTION

- Methodology
  - Information entered into a de-identified EXCEL database
  - Histological analysis by Parkland pathologist
  - Data collected: demographics, radiologic analysis, pathological evaluation, treatment course, and therapeutic outcomes



PROJECT DESCRIPTION

- Methodology
  - No exclusions based on age, ethnic background, life expectancy, nutritional status, or performance status; only females will be included in this project
  - Sample size: 50 patients
  - Variables: BMI and surgeon performing skin-sparing mastectomy
  - Secondary variables (data collection tool)

PROJECT DESCRIPTION

- Projected Timeline
  - IRB approval University of Texas Southwestern Medical Center and Texas Woman's University
  - Plastics registry database review
  - Retrospective chart review
  - Pathologic tissue analysis/review
  - Statistical analysis and reporting

PROJECT DESCRIPTION

- Institutional Support
  - Plastic Surgery Department reconstruction and implant registry
  - Division of Surgical Oncology University of Texas Southwestern Medical Center
  - Department of Pathology

PROJECT DESCRIPTION

- Deliverables/Benefits/Anticipated Outcomes
  - Provide important data that will be considered when planning future surgical intervention in the treatment of patients with breast cancer
  - Better understanding of this treatment modality
  - Lead to prospective breast cancer trials and interventions
  - It is anticipated that:
    - Following skin-sparing mastectomy, there are low rates of residual breast tissue
    - There is no correlation in breast cancer recurrence and the presence of residual breast tissue

PROJECT DESCRIPTION

- Statistical evaluation
- Report of findings compiled in order to evaluate the stated purpose of the study
- Data will be submitted for publication in a professional journal and implemented in the treatment of the patients cared for by these facilities

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