

Current Update on Conservation Therapy:

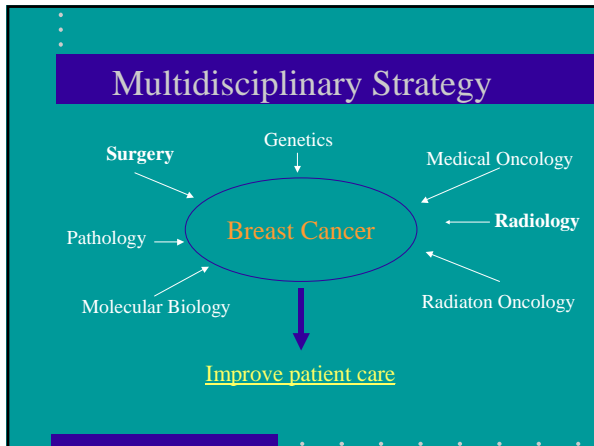
Evaluation of the Pathology specimen

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Changes in the history of breast carcinoma

- Subclinical lesions: breast conservation therapy
- Sentinel lymph node
- Different therapeutic options: prognostic, predictive factors and targeted therapy





Classic prognostic factors

- Size
- Type of tumor
- Nuclear and histologic grades
- Mitotic index
- Vascular invasion
- Margins
- Lymph nodes (SLN)

Size: Macroscopic and microscopic determination

Microscopic examination:
Type of tumor
Nuclear and histologic grades
Mitotic index
Vascular invasion
Margins
Lymph nodes (SLN)

Fixation issues

- Time elapsed between biopsy and fixation.
- Type of fixative and time of fixation: avoid the friday afternoon effect

Sampling of the biopsy

- Enough sections to evaluate the important parameters for BCT
- Targeted sampling of the biopsy if too large
- If core biopsy shows certain features, more sampling maybe necessary: special type of cancer, inflammatory cancer, Paget's disease
- Sample macroscopically uninvolved tissue: LVI, lobular cancer, precursor lesions

Size

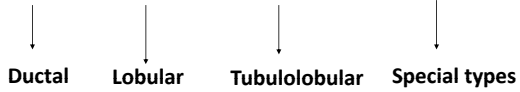
- Size is not a limiting factor for BCT
- Ratio of tumor size/breast size important

Size

- Close correlation with imaging
- Macroscopic and microscopic measurement
- Pitfalls : invasive component,fragmented biopsies, lobular cancer

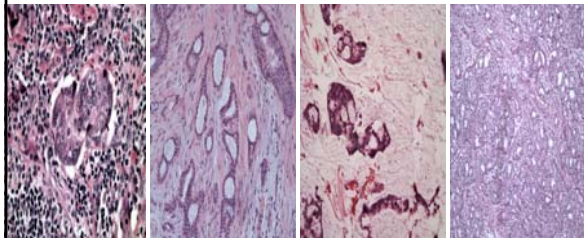
Tumor type

Important when considering breast conservation therapy



Special types of cancer

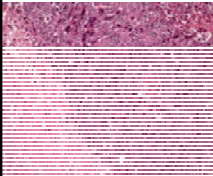
Medullary Tubular Colloid Cribriform



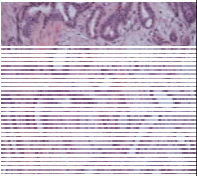
Better outcome, but strict diagnostic criteria

Grade

High grade



Low grade




Tubule formation
Nuclear grade
Mitotic rate

Margins

- Orientation and x ray of the specimen
- Sampling of margins: to freeze or not to freeze
- Reporting of margins
- Significance of the number of positive margins
- Margin status in relation to tumor type and size

Evaluation of the margins


Single specimen



Separate margins

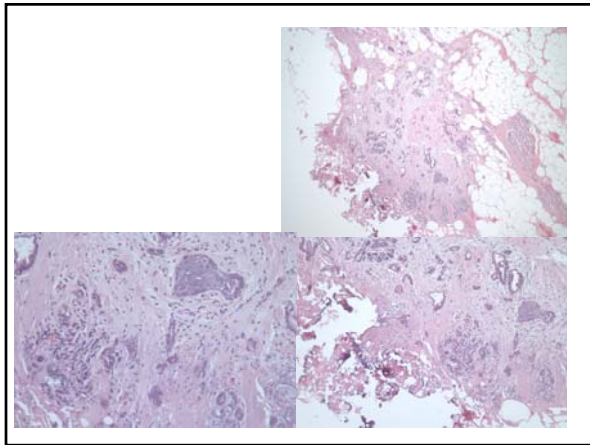
Submitted entirely

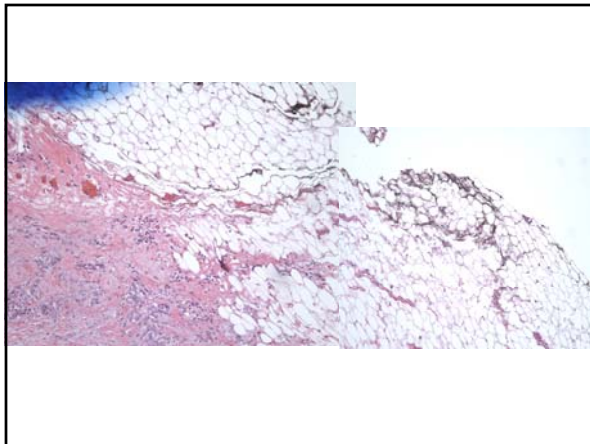
Reporting



Assessment of margins

- Shaved margins
- Perpendicular margins: allows reporting of the distance from the tumor to the margin
- Volume of tumor near the margin: size and location of the tumor





Evaluation of margins: residual cancer

•276 patients: 32% close (53%),61% positive (68%) and 7% undetermined margins (67%)

•Increased incidence: large size, higher grade, positive margins (number of margins involved), single inked markings, young age

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Adverse findings that need to be reported

- Positive margins
- High grade cancers
- High mitotic rate
- Necrosis
- Vascular invasion
- Extensive intraductal component
- Multicentricity

Risk stratification according to pathological parameters:

Size
Margins
Tumor type
Grade
Vascular invasion
Multicentricity/EIC

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Poor prognosis Good prognosis Intermediate

