Alliance A11104/ACRIN 6694: Effect of Preoperative Breast MRI on Surgical Outcomes, Costs and Quality of Life of Women with Breast Cancer

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Making Cancer History®

<u>Detection of multi-focal/multi-</u> <u>centric disease</u>

- Meta-analysis of 19 studies, 2610 women
- Additional foci of disease detected by MRI only in 16% (6-34%)
- MRI altered surgical therapy in 7.8-33% of women
- Change in surgery as a result of FP MRI 5.5% (95% CI 3.1% -9.55)

Houssami, JCO 2008

Does preoperative breast MRI have clinical utility?

- Reduce re-operation rates
 - MRI does not improve margin negative rates at first excision
- Reduce local recurrence rate
 - Retrospective data-mixed results
- Reduce contralateral breast cancer rate
 - Significance of MRI detected contralateral breast cancer?

Tumor subtype and local recurrence rate following BCT ER + ER-ER/PR/ ER or PR ER/PR -, ER or PR+, her-2 her-2 ++, her-2 + Her-2 -LR rate 0.8% 1.5% 7.1% 8.4% at 5 years

Nguyen et al, JCO 2008



Preoperative breast MRI improves staging and selection of patients with ER/PR/ Her-2 negative and Her-2 amplified tumors for BCT, thus lowering rates of local regional recurrence.

Alliance A11104 Phase III trial



Sample size: 244 patients/arm

Trial endpoints

- Primary
 - LRR rates at 5 years between the MRI and no MRI arm
- Secondary
 - Rates of re-excision, including conversion to mastectomy
 - Time to local recurrence
 - Overall and disease specific survival
 - Contralateral breast cancer rates
 - MRI technical performance (sensitivity, specificity, PPV)

Eligibility criteria

- Women with
 - her-2 positive breast cancer (ER/PR negative) OR
 - Triple negative breast cancer
- Stage I-II, unilateral cancer
- No previous breast cancer history
- No preoperative chemotherapy
- No plans for partial breast irradiation following lumpectomy
- No BRCA carriers

MRI Findings Management Flow

MRI Findings Management Flow Chart:





Study	Requirement	Material request
Medical care costs	Required	CRFs with patient status and test data
QOL	Required	questionnaire
Molecular predictors	optional	Tissue

AMENDMENT 1

- Tomo allowed
- Changes to HER2+ testing (2013 ASCO/ CAP)
- Simplify tissue/blood correlative
- Clarify funding for MRI

Current Status

- Activated 2/22/14
- Prior to activition:
 - 2 steps needed prior to approval to accrue
 - IRB approval, including activation amendment
 - PSA from ACRIN