

Ankita Roy-Adhia, MD James D. Murphy, BA (Department of Breast Surgery), Hayley Everett, MD (Department of Breast Surgery), Kirsten Lung, MD (Department of Breast Surgery), Masha Kocherginsky, PhD (Department of Biostatistics), Maxwell Shramuk, MS (Department of Biostatistics), Michael Gurley, BA (Department of Applied Informatics), Neelima Katam, MS (Department of Applied Informatics), Kevin Bethke, MD, Nora Hansen MD, Olga Kantor, MD Seema A. Khan, MD (Department of Breast Surgery)

Background

- Lobular Carcinoma In-Situ (LCIS)** is a well-established risk marker for the development of invasive carcinoma (IC) in either breast. Management has traditionally been surveillance-based for classic LCIS, as it has not been considered a direct precursor lesion.
- Variant LCIS (v-LCIS)** Variant LCIS includes pleomorphic LCIS and florid LCIS—subtypes characterized by more aggressive histologic features. Unlike classic LCIS, v-LCIS may behave as a precursor lesion, yet data guiding its clinical management remain scarce and outcomes are uncertain.
- Objective:** To present a single-institution review of management and patient outcomes for v-LCIS to help guide clinical decision-making.

Methods

Study Design: Retrospective single-institution review. The Northwestern Medicine Enterprise Data Warehouse was queried for patients with v-LCIS on core needle biopsy from January 2000–December 2023.

Inclusion Criteria

- Age >18 years
- v-LCIS (pleomorphic or florid) identified on CNB

Exclusion Criteria

- Concurrent IC or DCIS within 4 cm of v-LCIS in the prior year
- Concurrent synchronous lesions or patients who underwent mastectomy

Outcome Definitions

- Positive margins: v-LCIS, IC, or DCIS within 2 mm of ink
- Ipsilateral recurrence: v-LCIS, DCIS, or IC in the ipsilateral breast

Statistical Analysis

Clinical, radiological, and pathological variables were examined for associations with upgrade and ipsilateral recurrence.

Recurrence-free survival was analyzed using Kaplan-Meier methods with log-rank testing.

Results

Baseline Characteristics (N = 101)

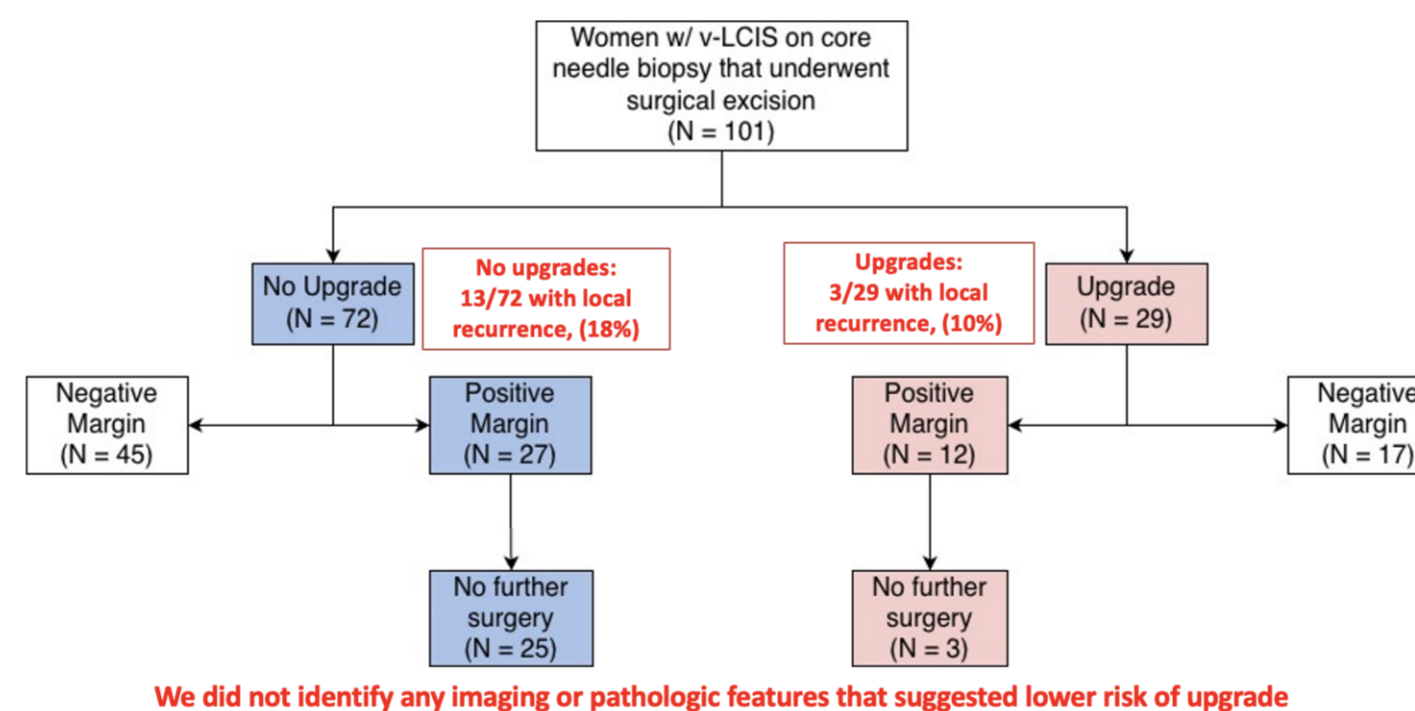
- 75 pleomorphic-LCIS | 25 florid-LCIS | 6 mixed variant-LCIS
- Median age: 56 years; majority postmenopausal (59/101)

Radiographic Presentation

- Mammogram performed in 97/101 patients
- Suspicious calcifications: 77/101 (79%)
- Focal asymmetry: 10/101 (10%)
- Ultrasound performed in 41/101; mass seen in 16/41 (39%)

**No significant associations found between radiological presentation and upgrade to malignancy*

Figure 1



Surgical Outcomes & Upgrade Rate

All 101 patients underwent surgical excision after v-LCIS on core needle biopsy.

Upgrade at surgery: 29/101 (29%)

No upgrade: 72/101 (71%)

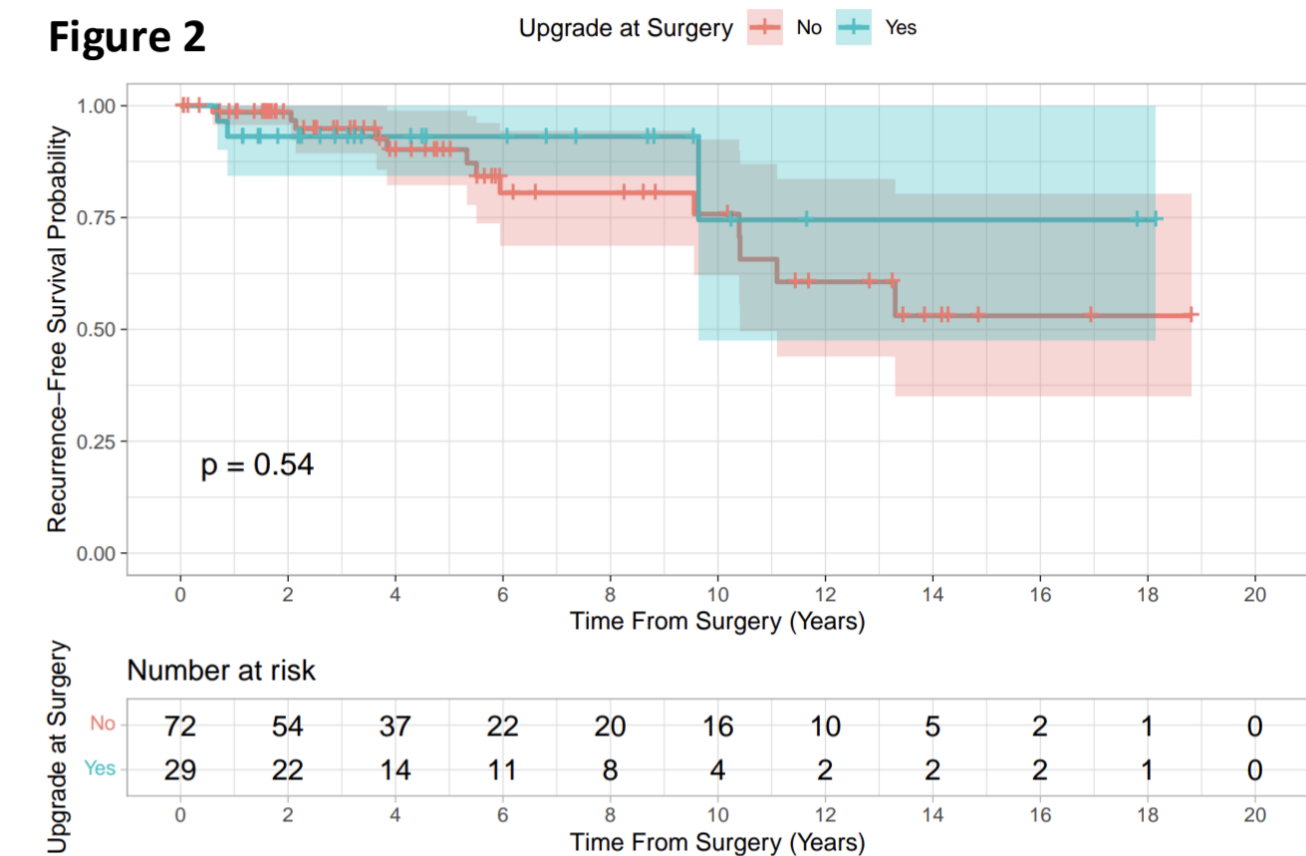
Upgraded patients trended toward lower local recurrence, likely reflecting more adjuvant treatment (ET and RT).

Margin Status & Treatment Patterns

Among all 101 patients, positive margins were frequently managed without re-excision (25/27 in non-upgrade group, 3/12 in upgrade group), reflecting variable institutional practice over the study period.

Results

Figure 2



Recurrence-Free Survival

Kaplan-Meier analysis showed no statistically significant difference in recurrence-free survival between upgraded vs. non-upgraded patients over a median follow-up of 20 years. 6-year recurrence free survival was 81% for the no-upgrade group and 93% for the upgrade group (p=0.54).

Conclusions

- No clinical or radiological features identified that predict lower risk of upgrade to malignancy
- Upgraded patients trended toward lower local recurrence (10% vs 18%), likely due to more frequent use of adjuvant therapies.
- Surgical excision for v-LCIS remains the standard of care, given upgrade rate of 29%
- These data support the emerging view that v-LCIS functions as a precursor lesion, analogous to DCIS, warranting vigilant management and larger scale clinical studies.**

References