

# LCIS as a Risk Factor for Secondary Contralateral Breast Cancer in Patients with Ipsilateral Invasive Breast Cancer

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## BACKGROUND

- Lobular carcinoma in situ (LCIS) is a known risk factor for initial breast cancer (BC) development.
- It is unknown whether there is an increased risk of future contralateral breast cancer (CBC) or in-breast tumor recurrence (IBTR) in women diagnosed with invasive breast cancer (IBC) and LCIS concurrently.

## AIMS

- To determine if there is an association between LCIS identified concurrently with IBC and the development of a future new CBC or increased IBTR.

## METHODS

- Female patients diagnosed with IBC between January 1, 2013 and April 30, 2019 at single academic center
- Inclusion → age ≥ 18, stage I-III IBC, breast cancer operation with pathology report available for review
- Exclusion → bilateral mastectomy, T4d
- Patients divided into two groups based on the presence or absence of LCIS in their IBC surgical specimen
- Chi square test and RR evaluated performed

## RESULTS

Patients with and without LCIS were similar with respect to clinicopathologic characteristics.

**Table 1. Clinicopathologic Characteristics**

Characteristic	No LCIS N=1,507 (%)	LCIS N=301 (%)	P-value
Average Age (sd)	62(56-68)	64(58-69)	0.74
Past Ipsilateral Atypia	68 (4.5)	16 (5.3)	0.55
Past Contralateral Atypia	51 (3.4)	7 (2.3)	0.47
Lumpectomy	1,091 (72.3)	188 (62.5)	0.0008*
Unilateral Mastectomy	416 (27.7)	113 (37.5)	0.0008*
Endocrine Therapy	1,113 (73.9)	237 (78.8)	0.08
Radiation Therapy	1,073 (71.2)	195 (64.8)	0.02*
Average Follow Up Years (sd)	2.6 (1.6)	2.5 (1.6)	0.32

\*p<0.05 statistically significant

Patients with LCIS had a higher rate of CBC, no difference in IBTR.

**Table 2. CBC & Recurrence Rates**

	No LCIS n (%)	LCIS n (%)	P-value
CBC (all patients)	15/1507 (1.0)	10/301 (3.3)	0.004*
In-breast Tumor Recurrence (IBTR) (lumpectomy patients)	25/1091 (1.7)	1/188 (0.3)	0.16

\*p<0.05 statistically significant

## RESULTS

The RR for future CBC increased in patients with LCIS versus those without LCIS.

**Table 3. LCIS as a Risk Factor for Future BC**

	Risk Ratio (95% CI)	P-value
LCIS as a Risk Factor for CBC	3.3 (1.5-7.3)	0.003*
LCIS as a Risk Factor for IBTR	0.2 (0.03-1.7)	0.15

\*p<0.05 statistically significant

## Conclusions

- LCIS diagnosed concurrently with IBC is associated with and is a risk factor for secondary CBC
  - Increased screening may be warranted
- LCIS diagnosed concurrently with IBC is not associated with changes in IBTR
- LCIS is diagnosed concurrently in 16.6% of invasive BC surgical specimens

## REFERENCES

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- Wen HY, Brogi E. Lobular Carcinoma In Situ. *Surg Pathol Clin.* Mar 2018;11(1):123-145. doi:10.1016/j.path.2017.09.009