

Kevin Brown, MD¹, Erinn Downs-Kelly, DO², Zahraa Al-Hilli, MD¹

¹Department of General Surgery, Cleveland Clinic Foundation, Cleveland, Ohio

²Department of Pathology, Cleveland Clinic Foundation, Cleveland, Ohio

Background

- Pleomorphic Lobular Carcinoma in-Situ (PLCIS) is a non obligate precursor lesion that differs in morphology and molecular findings from classic LCIS.
- Literature has shown an upgrade on excision after a core needle diagnosis of PLCIS ranging from 30-50%.
- PLCIS has only been studied in smaller case series and has varied management recommendations. Further study of this entity will eventually lead to unified treatment recommendations.
- Herein we present our clinical experience with PLCIS diagnosed on core biopsy at a single institution.

Methods

- Retrospective query performed through the institution's pathology lab information systems for cases diagnosed as "PLCIS".
- Cases indexed as PLCIS on initial core biopsy, absent of other substantial diagnoses (DCIS or invasive carcinoma) with subsequent excision were included.
- 228 patients identified between 1998 and 2019 after initial query were reviewed with a total of 28 patients meeting criteria for inclusion.
- Comprehensive retrospective chart review was performed to identify demographic, clinical, radiologic and pathologic data for analysis.

All pts

- Initial query
- Cases indexed as PLCIS from 1998-2019

228 pts

- Exclusion based on concomitant diagnosis (DCIS, Invasion)

28 pts

- Retrospective chart review
- Demographic, social, pathologic data retrieved

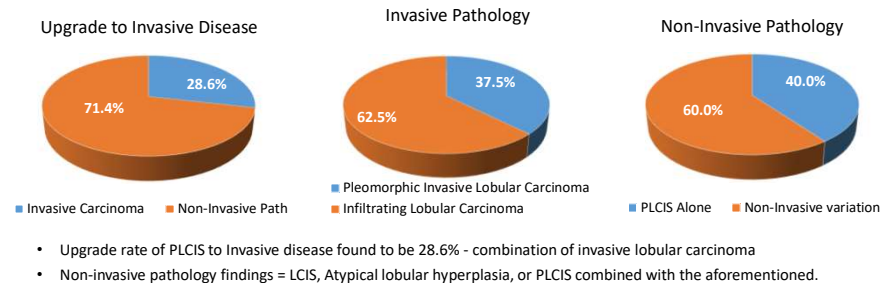
Patient Characteristics

Characteristics	N	Percentage (%)
Demographics		
Age, average years(range)	63.5 (43-79)	
Race		
Caucasian	24	85.7
Black	4	14.3
BMI, average (range)	26.6 (18.6-42.7)	
Smoking History		
Yes	14	50
No	14	50
Alcohol use		
Yes	19	67.9
No	8	28.6
Family History		
Yes	12	42.9
No	16	57.1
Menopause status		
Pre-menopausal	3	10.7
Post-menopausal	25	89.3

Mammographic Findings and Surgical Intervention

Radiographic Findings	N	Percentage (%)
Initial Imaging Modality		
Mammogram	28	100
Findings		
Calcifications	24	85.7
Asymmetry	3	10.7
Distortion	3	10.7
Mass presence	6	21.4
Follow up		
Follow up, average months (range)	64.5 (8-139)	
Second procedure after excision?		
Yes	9	34.6
No	17	65.4
Second procedure type:		
Mastectomy	5	0.56
Sentinel node biopsy/Axillary dissection	3	0.33
Re-excision for margins	4	0.44

Upgrade Rate



Results

- Twenty-eight (n=28) patients were identified that met inclusion criteria.
- Average age of patients was 63.5 years with a range (43-79).
- 85.7% were Caucasian and the remaining 14.3% Black.
- Average BMI was 26.61, range (18.6-42.7).
- 50% of patients had a history of smoking and 67.9% with a history of alcohol use.
- 12/28 (42.9%) had a documented family history of breast cancer and 4/28(14.3%) had a personal history of breast cancer .
- 88% of women were post-menopausal at the time of diagnosis.
- All patients underwent mammographic evaluation;
 - calcifications were present in 24/28 (85.7%)
 - asymmetry in 3/28 (10.7%)
 - distortion in 3/28 (10.7%)
 - A mass was present in 6/28 (21.4%).
- All patients underwent core needle biopsy with a diagnosis of PLCIS followed by excisional biopsy.
- On final pathology, 8/28 (28.6%) of patients were found to have invasive carcinoma while 20/28 (71.4%) had non invasive disease including either PLCIS or classic lobular neoplasia.
- Of those with invasive carcinoma on final pathology 3 (37.5%) patients underwent re-operation; 2 underwent mastectomies for patient choice, and one had re-excision for positive margins.

Conclusions

- A core needle diagnosis of PLCIS should prompt excision as 28.6% of patients in our study with PLCIS as the most significant lesion on core needle biopsy showed an upgrade to invasive carcinoma on excision.
- Currently, developing treatment guidelines is difficult due to the low incidence of this lesion, however, continued study is warranted to develop unified and evidence based management guidelines.
- **Contact; Kevin C. Brown MD : brownk19@ccf.org**