LBCA Advocate Chat Series 2022

Reading Research Articles and Posters: A Conversation with Dr. Megan Kruse on SABCS21 Research and Presentation on Pleomorphic vs. Non-pleomorphic ILC
Welcome and Today’s Session

Information about today’s session:

- Presentation portion will be recorded, and all participants will be muted

- Question and Answer period, which will not be recorded, will follow:
  - Write your questions in the chat throughout the presentation
  - During the Q & A portion, questions from the chat will be read. The moderator may call on people as well who indicate in the chat that they would like to ask a question
  - NOTE: Please avoid any questions about personal issues or specific medical questions as they can not be addressed during this event
Reading Research Articles and Posters: A Conversation about SABCS21 Research and Presentation on Pleomorphic vs. Non-pleomorphic ILC

Megan Kruse, M.D.
Breast Medical Oncologist
Taussig Cancer Institute
Cleveland Clinic

lobularbreastcancer.org
What Goes Into a Research Idea?

- An important question
- Clear goal
- Resources to complete the work
  - Scientific team
  - Funding
  - Patients
- Ability to share the findings with scientific community

lobularbreastcancer.org
Once the Research Gets Done….

- Presenting findings is key for all results!
- Starts with an abstract then usually a poster
- Followed by full publication
Getting The Most Out of Conferences & Presentations

• Know the conferences you will get the most out of
  • International, National and Regional options
  • SABCS, ASCO, AACR, ESMO, ILC Symposium

• Review the abstracts in advance and take advantage of search tools
  • Online programs are searchable by keyword/“track”

• Watch for “preview” emails from conferences or major media outlets
  • ASCO daily news, ASCO post, Med Page Today, etc
Getting The Most Out of Conferences & Presentations

• If attending live (in person or virtual):
  
  • Make an agenda to include your most interesting sessions
  
  • Prioritize the oral sessions for the practice changing data
  
  • Prioritize specialty areas in the poster session
  
  • Watch for special topic sessions (clinical challenges, rare subtypes)
  
  • See if your organizations of interest (LBCA!) have any special programs
Getting The Most Out of Conferences & Presentations

If catching up after the conference:

• Watch your trusted virtual outlets for high impact presentations

• Hybrid conferences will have presentations on demand

• Look to advocacy associations and local academic medical centers for reviews

• Ask your medical team about things they are excited about
The Anatomy of a Poster: Traditional

IMRAD Format:
- Introduction
- Methods
- Results
- Discussion/Conclusions
- References

TEXT
Heavy with some graphics
Should capture what is in the written abstract but often with more data though not all data

https://iu.instructure.com/courses/1729149/pages/introduction-to-research-posters
The Anatomy of a Poster: Modern

Focus on graphics for methods and results

Clear conclusion that takes center stage

Clear contact information

lobularbreastcancer.org
The Anatomy of a Poster: Modern

Focus on graphics for methods and results

Clear conclusion that takes center stage

Clear contact information

lobularbreastcancer.org
Navigating a Poster Session/Preparing a Poster

How to create a better research poster in less time (#betterposter Generation 1)

• YouTube: Mike Morrison

lobularbreastcancer.org
Navigating a Poster Session

• Have a plan!

• Consider having a “buddy” or join a “poster crawl”

• Look for QR codes and take photos

• Bring a notepad to joint down exciting points/ideas

• Consider collecting emails for future correspondence/networking
Pleomorphic ILC vs Non-Pleo ILC Presentation
SABCS 2021 Poster Session
Background

• Invasive lobular carcinoma (ILC) comprises of a variety of subtypes: classic, pleomorphic, alveolar, solid, mixed, and tubullobulbar.1

• Classical ILC, the most common subtype, is composed of a single file of cells invading the stroma. 2

• Pleomorphic ILC (pILC) displays increased nuclear pleomorphism2 and additional patterns of invasion.3

• pILC is associated with advanced stage, HER2 positivity, and lymph node involvement.4

• Studies comparing survival outcomes between pILC and non-pILC have yielded mixed results showing either decreased survival in pILC or no difference in survival.5,6

Objectives

• Primary: Compare clinicopathologic features and treatment patterns of pILC and non-pILC.

• Secondary: Measure recurrence-free survival (RFS) and overall survival (OS) between both groups.

Methods

• Study design: Retrospective study of large institutional database completed via chart review of electronic medical records.

• Study population: Adult patients evaluation for ILC during 2004-2017 in the Cleveland Clinic Health System.

• Patient characteristics: demographics, biomarker profile, disease staging, specific ILC histology, treatment, recurrence events

Statistics

• ANOVA and Person’s chi-square test were utilized to compare features between pILC and non-pILC.

• Log-rank test was used to compare RFS and OS between both groups as visualized by Kaplan-Meier curve.

• Propensity score matching was completed to account for confounding variables.

• Cox proportional hazard model was used to determine RFS and OS.

Results

Table 1. Baseline characteristics, disease traits, and treatment patterns.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Non-pILC (n=591)</th>
<th>pILC (n=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median age</td>
<td>61.9</td>
<td>60.0</td>
</tr>
<tr>
<td>Postmenopausal (%)</td>
<td>76.6</td>
<td>70.0</td>
</tr>
<tr>
<td>ER+ (%)</td>
<td>98.5</td>
<td>94.0</td>
</tr>
<tr>
<td>PR+ (%)</td>
<td>81.4</td>
<td>81.0</td>
</tr>
<tr>
<td>HER2-amplified (%)</td>
<td>7.0</td>
<td>12.2</td>
</tr>
<tr>
<td>Grade 3 (%)</td>
<td>2.2</td>
<td>3.3</td>
</tr>
<tr>
<td>Stage I (%)</td>
<td>48.0</td>
<td>23.5</td>
</tr>
<tr>
<td>Stage II (%)</td>
<td>37.4</td>
<td>50.0</td>
</tr>
<tr>
<td>Stage III (%)</td>
<td>14.6</td>
<td>26.5</td>
</tr>
<tr>
<td>pT1 (%)</td>
<td>58.5</td>
<td>37.0</td>
</tr>
<tr>
<td>pT2-4 (%)</td>
<td>41.5</td>
<td>63.0</td>
</tr>
<tr>
<td>pN1+ (%)</td>
<td>66.0</td>
<td>48.5</td>
</tr>
<tr>
<td>Mastectomy (%)</td>
<td>52.6</td>
<td>65.0</td>
</tr>
<tr>
<td>Chemotherapy (%)</td>
<td>36.5</td>
<td>66.0</td>
</tr>
<tr>
<td>Anti-HER2 therapy (%)</td>
<td>5.8</td>
<td>12.0</td>
</tr>
</tbody>
</table>

Table 2. 10-year RFS and OS.

<table>
<thead>
<tr>
<th></th>
<th>Non-pILC (n=591)</th>
<th>pILC (n=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-year RFS (%)</td>
<td>71.5 (95% CI 68.7-74.2)</td>
<td>79.2 (95% CI 76.3-82.1)</td>
</tr>
<tr>
<td>10-year OS (%)</td>
<td>78.0 (95% CI 75.0-81.7)</td>
<td>86.3 (95% CI 78.3-95.7)</td>
</tr>
</tbody>
</table>

Figure 1. 10-year RFS.

Figure 2. 10-year OS.

Discussion

• pILC presents with more advanced disease in the breast but not in lymph nodes compared to non-pILC.

• At our institution, patients with pILC were treated with more aggressive therapies, including chemotherapy and mastectomy, compared to those with non-pILC, likely related to higher grade, lower ER-positivity, and higher HER2-positivity in pILC.

• After propensity score matching, pILC appears to have increased RFS and OS compared to non-pILC.

• These data reveal some unexpected trends that challenge the notion of pILC having worse outcomes compared with non-pILC.

References


This presentation is the intellectual property of the author. Contact them at wrightm11@ccf.org for permission to reprint and/or distribute.
Pleomorphic ILC vs Non-Pleo ILC Presentation: Introduction

• Invasive lobular carcinoma (ILC) comprises of a variety of subtypes: classic, pleomorphic, alveolar, solid, mixed, and tubulolobuar

• Classical ILC, the most common subtype, is composed of a single file of cells invading the stroma

• Pleomorphic ILC (pILC) displays increased nuclear pleomorphism and additional patterns of invasion

• pILC is associated with advanced stage, HER2 positivity, and lymph node involvement

• Studies comparing survival outcomes between pILC and non-pILC have yielded mixed results showing either decreased survival in pILC or no difference in survival
Pleomorphic ILC vs Non-Pleo ILC Presentation: Methods

• Retrospective review of all ILC patients treated at Cleveland Clinic from 2004-2017

• Removed patients with Stage IV cancer 691 total patients

• Recorded all clinical characteristics of patients and their cancers, treatment info

• Also documented any recurrences or deaths that occurred
## Pleomorphic ILC vs Non-Pleo ILC Presentation: Results

<table>
<thead>
<tr>
<th></th>
<th>Non-pILC (n=591)</th>
<th>pILC (n=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median age</td>
<td>61.9</td>
<td>60.0</td>
</tr>
<tr>
<td>Postmenopausal (%)</td>
<td>76.5</td>
<td>70.0</td>
</tr>
<tr>
<td>ER+ (%)</td>
<td>98.5</td>
<td>94.0</td>
</tr>
<tr>
<td>PR+ (%)</td>
<td>81.4</td>
<td>81.0</td>
</tr>
<tr>
<td>HER2-amplified (%)</td>
<td>7.0</td>
<td>12.2</td>
</tr>
<tr>
<td>Grade 3 (%)</td>
<td>2.2</td>
<td>33.3</td>
</tr>
<tr>
<td>Stage I (%)</td>
<td>48.0</td>
<td>23.5</td>
</tr>
<tr>
<td>Stage II (%)</td>
<td>37.4</td>
<td>50.0</td>
</tr>
<tr>
<td>Stage III (%)</td>
<td>14.6</td>
<td>26.5</td>
</tr>
<tr>
<td>pT1 (%)</td>
<td>58.5</td>
<td>37.0</td>
</tr>
<tr>
<td>pT2-4 (%)</td>
<td>41.5</td>
<td>63.0</td>
</tr>
<tr>
<td>pN1+ (%)</td>
<td>66.0</td>
<td>48.5</td>
</tr>
<tr>
<td>Mastectomy (%)</td>
<td>52.6</td>
<td>65.0</td>
</tr>
<tr>
<td>Chemotherapy (%)</td>
<td>36.5</td>
<td>66.0</td>
</tr>
<tr>
<td>Anti-HER2 therapy (%)</td>
<td>5.8</td>
<td>12.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Non-pILC (n=591)</th>
<th>pILC (n=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10-year RFS (%)</td>
<td>71.5 (95% CI 58.7-84.2)</td>
<td>79.2 (95% CI 66.3-92.1)</td>
</tr>
<tr>
<td>10-year OS (%)</td>
<td>76.0 (95% CI 65.0-87.0)</td>
<td>86.3 (95% CI 76.9-95.7)</td>
</tr>
</tbody>
</table>
Pleomorphic ILC vs Non-Pleo ILC Presentation: Results

**HR 1.52**  
(95% CI 0.71-3.25)  

**HR 1.77**  
(95% CI 0.85-3.69)
• At our institution, patients with pILC were treated with more aggressive therapies, including chemotherapy and mastectomy, compared to those with non-pILC, likely related to higher grade, lower ER-positivity, and higher HER2-positivity in pILC

• pILC appears to have increased RFS and OS compared to non-pILC in this cohort

• These data reveal some unexpected trends that challenge the notion of pILC having worse outcomes compared with non-pILC

• Analysis of HER2+ cases vs HER2- cases is crucial awaiting this

• Is there a difference in treatment responsiveness or outcomes for HER- pILC vs HER2+ pILC?
Thank you!
Questions & Answers