

Current definition of locally advanced breast cancer

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We read the article “Concurrent chemoradiotherapy for locally advanced breast cancer—time for a new paradigm?” by Mandilaras *et al.*¹ with great interest. The authors stated that locally advanced breast cancer (LABC) includes tumours larger than 5 cm and those associated with bulky metastatic lymph nodes on physical examination; however, the article they referenced was published way back in 1990. A lot of water has flowed under the bridge since then!

Locally advanced breast cancer is a subset of breast cancer characterized by the most advanced breast tumours in the absence of distant metastasis. The need to identify LABC as a separate group of breast cancers arose in view of the high associated rate of locoregional and systemic failure (in the absence of distant metastasis at presentation) despite the best efforts of surgeons to remove locoregional spread of the tumour in its entirety. It was recognized that multimodality treatment (surgery, chemotherapy, and radiotherapy in combination with hormonal and targeted therapy if required) can significantly improve outcomes in this select group of patients.

The definition of LABC is not uniform across centres globally, considering the varied spectrum of presentation. In 2002, the 6th edition of the American Joint Committee on Cancer (AJCC) staging manual categorized ipsilateral supraclavicular lymphadenopathy as distant metastasis in breast cancer; however, such spread was reclassified as regional lymphadenopathy (N3) in LABC in the 7th edition of the AJCC manual in 2010². Many studies demonstrated that appropriate multimodality treatment can result in better survival in patients with metastatic disease limited to the ipsilateral supraclavicular nodes³. Some authors also include breast tumours more than 5 cm in size in the absence of regional lymphadenopathy (stage IIB, T3N0M0) as LABC, fueling further controversy in drafting a uniform definition of LABC^{1–3}. Inflammatory breast cancer is another subtype of LABC that is usually separately discussed, considering its distinct clinicopathologic characteristics in contrast with noninflammatory LABC^{2,4}.

Recent guidelines from the U.S. National Comprehensive Cancer Network describe LABC as AJCC stage III breast cancer; the definition includes breast cancer that fulfils any of the following criteria in the absence of distant metastasis⁵:

- Tumours more than 5 cm in size with regional lymphadenopathy (N1–3)
- Tumours of any size with direct extension to the chest wall or skin, or both (including ulcer or satellite nodules), regardless of regional lymphadenopathy
- Presence of regional lymphadenopathy (clinically fixed or matted axillary lymph nodes, or any of infraclavicular, supraclavicular, or internal mammary lymphadenopathy) regardless of tumour stage

Locally advanced breast cancer is further divided into “operable” or “inoperable” based on the probability of achieving negative margins on histopathologic examination after an initial surgical approach that would provide long-term reduction in locoregional recurrence. Although the sequence of chemotherapy to surgery (pre vs. post) does not change overall survival³, neoadjuvant chemotherapy is warranted in inoperable LABC to improve the chances of R0 resection. Although the National Comprehensive Cancer Network guidelines describe T3N1M0 breast tumours only as operable LABC; however, T4b breast tumours also have a large spectrum of skin involvement varying from small peau d’orange patches or ulcers to large fungating masses. A subset of T4b breast tumours with limited skin infiltration might therefore also be suitable for upfront negative-margins (pathology) resection.

It is an indisputable fact that LABC is a very heterogeneous group; however, using common terminology for LABC is important for oncologists and researchers exchanging information about their patients across centres and for evaluating and comparing the results of various studies, including trials.

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CONFLICT OF INTEREST DISCLOSURES

We have read and understood *Current Oncology's* policy on disclosing conflicts of interest, and we declare that we have none.

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