

## Factsheet

# Invasive Lobular Carcinoma (ILC) A Unique Subtype of Breast Cancer



Invasive Lobular Breast Cancer is the sixth most diagnosed cancer of women in the US. Recent research has highlighted opportunities to better understand this disease and improve the diagnosis, treatment and follow-up care for thousands of patients with ILC.

### Lobular breast cancer is not a "rare" cancer

Invasive Lobular Breast Cancer is the **6<sup>th</sup> most frequently diagnosed cancer of women in the US**. An estimated 39,000 new cases of ILC are diagnosed each year. Approximately 450,000 patients in the US are alive today who are either currently receiving treatment or have completed treatment for lobular breast cancer. ILC is the second most common histological subtype of breast cancer, comprising 10% to 15% of all breast cancers, and impacts more women than cancers of the kidney, brain, pancreas, liver, ovaries or Non-Hodgkin lymphoma. (*Adapted 2018 ACS Surveillance Research, SEER*)

### Lobular breast cancer is a distinct subtype of breast cancer

ILC has specific molecular features distinct from ductal breast cancer with its own unique subtypes and variants<sup>[1]</sup>. The hallmark of ILC is E-cadherin loss.<sup>[2]</sup> A better understanding of ILC's biology and behaviors could open doors to effective targeted therapies.

### Lobular breast cancer presents differently in the breast

Histologically, ILC often forms a distinct single-file pattern rather than the more common "lump". ILC has differences in presentation and behavior<sup>[3]</sup>. Symptoms can include hardening of the breast, swelling, changes in the appearance of the breast or nipple, skin changes or breast pain.

### Lobular breast cancer has a different metastatic pattern

Like patients with IDC, patients with ILC suffer from metastases to bone and brain. However, there are also significant differences in metastatic patterns between IDC and ILC, including increased spread of ILC to gastrointestinal, peritoneal and ovarian tissues, and decreased spread to visceral organs especially liver and lung.<sup>[3]</sup>

### Lobular breast tumors frequently recur many years after primary diagnosis

While ILC is frequently associated with an excellent initial prognosis, patients can suffer from late recurrences. There is increasing evidence that long-term outcomes of patients with ILC may be worse than those with IDC.<sup>[4]</sup>

### Lobular breast cancer is harder to detect in screening, advanced imaging and self-exams

Current imaging tools are less reliable for early detection of lobular disease and detection of distant recurrence. ILC is often occult in routine mammogram or other screening leading to later staging at diagnosis. Imaging to diagnose local or distant recurrence of ILC can also be inadequate.<sup>[5]</sup>

### Lobular breast cancer may respond differently to standard of care treatments

There is increasing evidence that standard of care chemotherapy and endocrine therapies currently equally applied to breast cancer patients may have different effectiveness applied to ILC and IDC.<sup>[6]</sup> More research is needed to refine ILC treatment protocols.

[1] McCart Reed, Breast Cancer Research 2015; Dabbs D, Breast Pathology, Elsevier

[2] Ciriello, Cell 2015

[3] Arpino et al, Breast Cancer Research, 2004; Mathew A et al GebFra 2017

[4] Pestalozzi et al, JCO, 2008; Engstrom et al, Histopathology, 2015; Adachi et al, BMC Cancer, 2016; Chen et al, PLoS 2017

[5] Johnson, K., Sarma, D. & Hwang, E.S. Lobular breast cancer series: imaging. Breast Cancer Res 17, 94 (2015), Hogan MP, Ulaner GA. J Nucl Med. 2015 Nov;56 (11):1674-80), American Journal of Roentgenology. 2014;202: 1140-1148. 10.2214/AJR.13.11156

[6] Metzger-Filho et al, JCO 2015; Delpech, et al. Br J Cancer 2013 23299541; Barroso-Sousa R, Metzger-Filho O. Ther Adv Med Oncol. 2016