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Invasive Lobular Carcinoma of Breast

Invasive lobular carcinoma of breast is the second most common type of breast cancer (behind invasive ductal carcinoma). This cancer is usually multifocal and bilateral. Tumor cells are distinguished by decreased E-cadherin levels causing them to align like in a "single file" fashion. This disease is usually asymptomatic in early stages and can be managed with surgery, chemotherapy, or radiation.



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Characteristics

Multifocal and Bilateral

Multiple-focal-lenses and Bi-ladder

Invasive lobular carcinoma is often associated with lobular carcinoma in situ (LCIS) and presents with multiple, bilateral, non-palpable lesions.

Decreased E-Cadherin

Down arrow E-CAD-Heron

Invasive lobular carcinoma, similarly to lobular carcinoma in situ, loses the expression of CDH1, which encodes for E-cadherin. Thus, decreased levels of E-cadherin (adhesion proteins) leads to discohesive infiltration.

"Single File" Cells

Lobules in Single File

Invasive lobular carcinoma has the hallmark histological presentation of "single file" tumor cells clustered into chains or strands that are capable of invading into adjacent stroma. These are known as "lobular lines" with no duct formation.

Presentation

Often Asymptomatic

Thumbs-up

Invasive lobular carcinoma is often asymptomatic in early stages. However, later the disease may present as palpable breast masses.

Management

Surgery

Surgeon

The treatment of invasive lobular carcinoma pertains to the staging and classification of the disease. Tumor removal (e.g. breast conserving, mastectomy) and/or lymph node dissection could be considered.

Chemotherapy and Radiation

Chemo-head-wrap and Radiation-radio

Invasive lobular carcinoma could also be treated with chemotherapy and radiation. Choice of treatment is based on the stage and classification of the disease.