Chapter 5

LOW GRADE DUKTAL CARCINOMA IN SITU AND CLASSICAL LOBULAR CARCINOMA IN SITU COMPARISON

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Introduction

Intraductal and intralobular proliferative lesions are different group epithelial proliferations which are limited in the breast ductal and lobular structures. The most common terminal originates from the ductal lobular unit and is limited there (Schnitt& et al,2012).

Low grade ductal carcinoma insitu (DCIS); It occurs in adult women, usually after 55 years of age, is a neoplasm that can be localized elsewhere in the mammary gland, detectable in a radiologically generalized calcification and rarely forming a mass (Hughes&et al, 2009).

Lobular carcinoma insitu (LCIS); These are neoplasms that are seen in adult women at 40 years of age, but whose incidence is reduced by menopause, can be seen at any localization in the mammary, and rarely calcified radiologically. 60-80% of the cases show ipsilateral breast multisentrite, and 25-30% of the patients report bilateral. LCIS is a very rare lesion (Wheeler&et al,1974).

Macroscopic Pathology

DCIS is usually detected by mammographic microcalcifications without macroscopic abnormality. However, in palpable cases, a hard, skin-colored mass can be detected on the cross-section of the material and in paste-like material that is readily cords by palpation and compression of the material in the retained ducts.

There is no macroscopically identified abnormality specific to LCIS.

Microscopy (histology)

DCIS: It consists of monotone round cells with diffuse thin chromatin, no nucleolus or indefinite, no mitosis, with increased nucleo / cytoplasmic ratio, small (1.5-2 times of diameter erythrocytes), monotone smooth contour nucleus (Dupont & Page, 1985). These neoplastic cells must have at least 2 neighboring ducts and at least 3 mm of space. Acini cell borders are enlarged with distinct monotone cells. Neoplastic cells show polarization around the lumen. Solid structures of neoplastic

Immunohistochemistry

DCIS: They display a strong, uniform membranous E-cadherin expression. Myoepithelial markers are positive, but ductal lobular structures of the normal mammary gland in DCIS are weaker than those surrounding them. Estrogen (ER) expression is clinically important for the determination of adjuvant endocrine therapy, usually strongly positive. Chromosomal losses were observed at 16q and 17p according to molecular studies.

ADH: Immunohistochemical and molecular characteristics similar to DCIS.

LCIS: E-cadherin shows loss of expression (not all); The cytoplasmic expression of p120 catenin (membranous staining of cells with p120 catenin in DCIS). (Maluf, Swanson&Koerner, 2001). Use of 34BE12 antibody for HMWCK staining diagnosis of LCIS, lack of staining supports diagnosis of DCIS. According to molecular studies, loss of 16q and gain at 1q were observed. Show CDH1 mutation (Solin&et al,2013).

Clinical Course

DCIS: Invasive cancer develops in about 30% of cases if not excised in total. Recurrence rate with total excision is less than 5-8% without radiation and recurrence rate is limited to 5%.

ADH: It is associated with a 3-5 fold increase in breast cancer risk. When the majority of the core needle biopsies are diagnosed, they accept indications for surgical excision, a worse lesion in the excisional material can be found in 15% of the cases (Allison&et al, 2011).

LCIS: There is a high risk of developing cancer later. Multisentrite and bilateral risk are high. The risk of cancer development decreases with menopause.

ALH: It is associated with a 3 to 6-fold increase in breast cancer risk. Approximately 60% of breast cancers that develop during ALH cases come to the ipsilateral breast. Core needle biopsy can present worse lesions in the excision site recognized in about 16% of cases (Cangiarella&et al, 2008).

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