Should we continue to use the terminology carcinoma in situ of the breast?

Gino I. Bianchi*

“When a mystery is too awesome, it is impossible to disobey”

Antoine de Saint-Exûpery, The Little Prince.

In an original article published recently in The Breast, Galimberti et al1, of the European Institute of Oncology in Milan, Italy, argue the reasons for adopting the IDN / ILN system nomenclature for carcinoma in situ in breast lesions. The term IDN (intraepithelial ductal neoplasia) was coined by Tavassoli2 in 1998 and shortly thereafter was proposed ILN (lobular intraepithelial neoplasia), as an analogy to intraepithelial lesions described in the cervix, vagina, vulva, prostate and pancreas. The category IDN 1A corresponds to the entity called planar epithelial atypia, which is an injury to the duct-lobular terminal. In this injury, the acini are observed dilated and lined by one or more layers of columnar epithelium with low-grade cytologic atypia. Moreover, DIN 1B category includes atypical ductal hyperplasia, an injury that has mixed characteristics between ductal carcinoma in situ and hyperplasia of usual type. Atypical ductal hyperplasia and ductal low-grade carcinoma in situ entities are often difficult to separate between them, being an extra argument in favor of adopting the IDN / ILN terminology. IDN 2 corresponds to the ductal carcinoma in situ grade 2, while category IDN 3 corresponds to ductal carcinoma in situ grade 3. ILN are characterized by proliferation of small cells, little cohesive within the acini, respecting the basement membrane. The magnitude of this proliferation in the acini, determines the degree of ILN. In the ILN 1 cell proliferation fill the acini without distending them, in ILN 2 cells fill and distend all acini and the ILN 3 cells occupying acini are larger and pleomorphic than previous categories. Another advantage of IDN/ILN system is that it doesn’t use the word carcinoma to refer to this type of injury, which has been linked to a decrease in anxiety and depression in women affected.

In regard to patient management, the IDN is usually detected by mammogram, because of its association with microcalcifications. For this type of injury, it has been shown the effectiveness of surgery associated with hormone therapy in estrogen receptor-positive tumors. Likewise, radiation therapy is indicated to reduce the risk of recurrence. Axillary dissection is not recommended for this type of injury.
For ILN diagnosed at biopsy, there are two types of behavior: the first is surgical resection, since up to 13% of ILN diagnosed at biopsy may have an invasive lesion in the surgical specimen; The second behavior is conservative, with frequent surveillance of the patient.

In summary, the authors recommend the IDN/ILN terminology over traditional terminology because for the following advantages:

1. Brings together atypical ductal hyperplasia and low grade ductal carcinoma in situ in the category IDN 1, facilitating in certain way, histological diagnosis and correlation between different observers.
2. Avoids using the term carcinoma for lesions that do not metastasize, with reduced adverse psychological effects that may have this term.
3. Categorizes the different breast lesions included in this classification according to their different morphologies and biological behavior.

Gino I Bianchi, Medical pathologist, Associate Professor, Faculty of Medicine, UCV and Unidad BPQ, Clínica Santa Sofia, Caracas, Venezuela

References

1. Galimberti V, Monti S, Mastropasqua MG. DCIS and LCIS are confusing and outdated terms. They should be abandoned in favor of ductal intraepithelial neoplasia (DIN) and lobular intraepithelial neoplasia (LIN). The Breast 22 (2013) 431e435