CHAPTER II

LITERATURE REVIEWS

Lobular carcinoma in situ (LCIS) was first characterized as a distinct entity by Foote and Stewart in 1941(1) who described LCIS as a non-invasive cancerous lesion arising in lobules and composed of uniform small cells with cytologic features of invasive lobular carcinoma (ILC). LCIS is often multicentric and frequently bilateral. Therefore, bilateral mastectomies are often performed for the treatment (2).

The works of Haagensen, Rosen and Page all highlighted the indolent behavior of Lobular neoplasm (LN) (2), suggesting that LN was a risk factor rather than a true precursor lesion. It was also noted that invasive ductal carcinoma was the most common type of invasive carcinoma to develop after LCIS (3). However, recent studies, comparing chromosomal alteration in LCIS and synchronous invasive lobular carcinoma, has demonstrated a clonal relationship between most of the paired lesions, suggesting a precursor-product relation between LCIS and invasive lobular carcinoma (4). Though, it appears that progression of LCIS to the invasive lobular carcinoma is less frequent and that on average it takes longer than those cases of intraductal carcinoma (3).

With the recognition of LCIS variants including pleomorphic (PLCIS) and necrotic (NLCIS), the management of LN is still evolving and there are no comprehensive guidelines for management of these lesions. The distinction between PLCIS and high-grade DCIS can be difficult by histologic basic alone. However, the E-cadherin immunostaining is very useful since absence of reactivity is diagnostic of LCIS (5-7); both for classic and their variants (2). Although, it has been reported that 16% of invasive lobular carcinoma demonstrated E-cadherin expression (10). Recent studies revealed the usefulness of p120 catenin expression in cases of lobular lesions while ductal carcinoma revealed negative results (11). The sensitivity and specificity of E-cadherin for lobular lesions is approximately 94% and 98% respectively.(12) On p120 catenin showed it to be a highly sensitive and specific marker for lobular lesions, demonstrating 100% concordance with E-cadherin immunohistochemical staining (11).

Thus, combined study of both E-cadherin and p120 studies added more specificity in distinguishing between these two types.

Evidence in the literatures have shown heterogenity in the natural history among LCIS. Recent studies suggested the PLCIS has a more aggressive phenotype than CLCIS (8). Thus, it is important to understand natural history and to define the most appropriate management of those LCIS lesions which seem to be different among LCIS groups and certainly between LCIS and DCIS. There have been only few studies of lobular neoplasm in Thailand, thus it is a need to perform the study of LCIS lesion to obtain more information in our hospital as a starting point for future further study.