SKIN CANCER (OTHER THAN MELANOMA)

ANALYSIS OF RISK FACTORS LINKED TO LYMPH NODE METASTASIS FOR CUTANEOUS SQUAMOUS CELL CARCINOMA; A RETROSPECTIVE COHORT STUDY OF 540 PATIENTS FROM A SINGLE INSTITUTE.

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Background: Cutaneous squamous cell carcinoma (CSCC) is one of the common skin cancers worldwide. Most CSCC can be cured by appropriate surgery in the early stage. However, once CSCC metastasizes, the patient will have a poor outcome. Although the efficacy of sentinel node biopsy (SNB) to detect the micrometastasis in the lymph node basin has been mentioned, the prognostic value of SNB is still uncertain and there is no definite criteria regarding adequate patient selection for SNB.

Objective: To identify the predictive factors for lymph node metastasis of CSCC and determine the indicator for SNB.

Materials and Methods: We conducted a retrospective cohort study for patients diagnosed primary CSCC at Niigata Cancer Center Hospital from 1989 to 2013. We listed five potential risk factors for lymph node metastasis based on the previous studies: maximum tumor diameter, tumor thickness, Clark's level, the degree of differentiation, and the growth pattern. The primary endpoint was lymph node metastasis-free survival defined as the time from the diagnosis of the primary tumor to the development of lymph node metastasis.

Results: We enrolled 540 patients with CSCC in this study. The median age of the patients was 80 (range 27-104). The median follow-up period was 38 months (range 1-305). Fifty-one patients (9.4%) had lymph node metastases including 23 patients (4.3%) whose lymph nodes were already metastasized at the initial diagnosis. Multivariate analysis revealed that CSCC greater than 20 mm in diameter, 4.0 mm in thickness and Clark level V were associated with significant risks for lymph node metastasis. Odds ratio of those three factors were 3.8 [95%CI: 1.7-8.4], 3.4 [95%CI: 1.3-9.5], and 2.4 [95%CI: 1.0-5.8], respectively.

Conclusion: We identified high-risk features of lymph node metastasis of CSCC. SNB should be considered to perform if CSCC has those features.