ABSTRACT NO. 41

AGGRESSIVE SQUAMOUS CELL CANCER OF THE SKIN: CLINICAL, PATHOLOGIC, AND IMMUNOHISTOCHEMICAL PREDICTORS OF SURVIVAL

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Background: Some cutaneous squamous cell carcinomas (SCC) behave quite aggressively. There are many clinical and histological prognostic indicators, but it is not clear which are the most important. We evaluated a population of patients with aggressive SCC to determine which play the most significant role in prognosis.

Methods: We retrospectively reviewed the Aggressive SCC database from the Southern Arizona VA Health Care System over a 5 year period. Aggressive SCC was defined as those with a history of local invasion (n=15), recurrence (n=9), or metastasis (n=7). The clinicopathologic features of these patients were identified and compared. Immunohistochemical (IHC) analysis using P53, E-Cadherin, Cyclin D, and Ki-67 was performed. A Cox proportional hazards model assessed predictors of mortality, reported as relative risks with 95% confidence intervals.

Results: The average size and depth of the lesions examined were 1.69 $\pm$ 0.97 cm and 0.77 $\pm$ 0.43 cm respectively. Angiolymphatic and perineural invasion were noted in 30% and 46.7%, respectively. Ki-67 demonstrated a mean proliferation index of 67.5 $\pm$ 24.9% in all cases and was 72.8 $\pm$ 24.6% in those that were metastatic. Loss of E-Cadherin was identified in 54.8% of the specimens and 71.4% of the metastatic group. Tumor size (RR=2.2 per cm, 1.1 - 4.4), Ki-67 (RR=0.70 per 10% increase, 0.53 - 0.92), and cyclin D1 (RR=1.3 per 10% increase, 1.0 – 1.6), and tumor location on cheeks, forehead, scalp or neck (RR=0.21, 0.05 – 0.91) were independent predictors of mortality.

Conclusions: The most important variables in predicting poorer survival for SCC are site, tumor size, and cyclin D1 production. Further evaluation of cyclin D1 and its role in SCC survivors is warranted. Patients with SCC and these indicators should be followed closely.