Survival Prognostication in Patients with Skeletal Metastases from Nasopharyngeal Carcinoma: An Evaluation of the Scandinavian Sarcoma Group, Katagiri and Bauer Scoring Systems

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Abstract

Introduction: Nasopharyngeal carcinoma (NPC) is characterised by early metastases with the skeleton being the most common site of metastases. The ability to prognosticate survival is crucial in the decision whether or not to offer surgery to these patients and the choice of surgery offered. We aimed to evaluate the scoring systems namely: Bauer, Katagiri and Scandinavian Sarcoma Group (SSG) in NPC patients with skeletal metastases. Materials and Methods: A total of 92 patients with skeletal metastases from NPC were studied. We retrospectively analysed the actual survival of these patients and compared with predicted survival according to the 3 scoring systems. The predicted survival according to each system was calculated and labelled as A scores. These were then re-scored by assigning NPC as a better prognostic tumour and labelled as B scores. The predicted survival of scores A and B were compared to actual survival. Univariate and multivariate Cox regression analyses were performed. The predictive values of each scoring were calculated. Results: The median overall survival for the whole cohort was 13 months (range: 1 to 120 months). In multivariate analysis, general condition and visceral metastases showed significant effect on survival. There were statistically significant differences (P<0.001) between the subgroups of the SSG B as well as Katagiri B scoring systems where NPC was classified as a better prognostic tumour. SSG B provided the highest predictive value (0.67) as compared to the other 2 scoring systems. Conclusion: The SSG and Katagiri score could be used to prognosticate NPC with a statistically significant association with actual survival.

Key words: Bone metastases, Nasopharyngeal cancer, Survival Prognosis

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