

A Comparative Analysis on Survival in Patients with Node Positive Cutaneous Head and Neck Squamous Cell Carcinoma as per TNM 7th and Tnm 8th Editions

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Abstract : Introduction: Recognition of the presence of extra capsular spread (ECS) has been a major change in the TNM 8th edition published by the American Joint Committee on Cancer in 2018. Irrespective of the size or number of lymph nodes, the presence of ECS makes N3b disease a stage IV disease. The objective of this retrospective observational study was to conduct a comparative analysis of survival outcomes in patients with lymph node-positive cutaneous head and neck squamous cell carcinoma (CHNSCC) based on their TNM 7th and TNM 8th editions classification. Materials and Methods: From January 2010 to December 2020, 71 patients with CHNSCC were identified from our centre's database who were treated with radical surgery and adjuvant radiotherapy. All histopathological reports were reviewed, and comprehensive nodal mapping was performed. The data were collected retrospectively and survival outcomes were compared using TNM 7th and 8th editions. Results: The median age of the whole group of 71 patients was 78 years, range 54 - 94 years, 63 were male and 8 female. In total, 2246 lymph nodes were analysed; 195 were positive for cancer. ECS was present in 130 lymph nodes, which led to a change in TNM staging. The details on N-stage as per TNM 7th edition was as follows; pN1 = 23, pN2a = 14, pN2b = 32, pN2c = 0, pN3 = 2. After incorporating the TNM 8th edition criterion (presence of ECS), the details on N-stage were as follows; pN1 = 6, pN2a = 5, pN2b = 3, pN2c = 0, pN3a = 0, pN3b = 57. This showed an increase in overall stage. According to TNM 7th edition, there were 23 patients were with stage III and remaining 48 patients, stage IV. As per TNM 8th edition, there were only 6 patients with stage III as compared to 65 patients with stage IV. For all patients, 2-year disease specific survival (DSS) and overall survival (OS) were 70% and 46%. 5-year DSS and OS rates were 66% and 20% respectively. Comparing the survival between stage III and stage IV of the two cohorts using both TNM 7th and 8th editions, there is an obvious greater survival difference between the stages if TNM 8th staging is used. However, meaningful statistics were not possible as the majority of patients (n = 65) were with stage IV and only 6 patients were stage III in the TNM 8th cohort. Conclusion: Our study provides a comprehensive analysis on lymph node data mapping in this specific patient population. It shows a better differentiation between stage III and stage IV in the TNM 8th edition as compared to TNM 7th however meaningful statistics were not possible due to the imbalance of patients in the sub-cohorts of the groups.

Keywords : cutaneous head and neck squamous cell carcinoma, extra capsular spread, neck lymphadenopathy, TNM 7th and 8th editions

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