

Eyelid sebaceous gland carcinoma, validation of AJCC 8th edition T staging- a retrospective study from North India

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Abstract

Purpose: This study compares the 8th edition staging of AJCC for prognosis of eyelid Sebaceous Gland Carcinoma (SGC) patients with respect to the 7th edition.

Methods: A retrospective study was undertaken over a period of 100 months. Ninety-nine histopathologically proven cases of eyelid SGC available for follow-up were recruited. Patients were staged by both the 7th and 8th editions of AJCC and followed up at six monthly intervals after surgery.

Results: Of the 99 eyelid SGC patients recruited, recurrence and orbital invasion developed in 22%, lymph node metastasis in 21% and 4% had distant metastasis and also died. High-risk features include tumour size >20 mm, orbital invasion, exenteration and staging by both the 7th and 8th editions of AJCC. Cox regression analysis revealed that staging by AJCC 8th edition was associated with greater risk for local recurrence (HR 3.01, 95% CI 1.65–5.51%, $p < 0.01$) lymph node metastasis (HR 8.26, 95% CI 3.96–17.19%, $p < 0.01$) and disease-free survival (HR 4.61, 95% CI 2.81–7.54). The Kaplan–Meier survival curves of eyelid SGC patients by the 8th edition AJCC staging were also significantly associated with lymph node metastasis ($p < 0.01$), tumour-related deaths ($p < 0.01$) and reduced disease-free survival ($p = 0.07$). The higher Harrell's values by the 8th edition signify better predictive value for lymph node metastasis and DFS (disease-free survival). The lower AIC values indicate a better monotonicity of gradients for lymph node metastasis, recurrence and DFS.

Conclusion: Staging by the 8th AJCC edition is, therefore, recommended for eyelid SGC as it gives a better perspective about disease outcome. The orbital extension was the single most important predictor of lymph node metastasis, recurrence and death.

KEYWORDS

AJCC staging 8th edition, eyelid, prognosis, sebaceous gland carcinoma, T category

1 | INTRODUCTION

Sebaceous gland carcinoma (SGC) is a malignant tumour of the eyelid or skin arising from the pilosebaceous unit. It accounts for 0.2%–4.6% of all malignant cutaneous neoplasms and most are periocular (Knackstedt & Samie, 2017). In the Caucasians, basal cell carcinoma is the most frequent (85%–95%) of eyelid cancers. SGC is

the most common malignant eyelid tumour in the south-east Asian countries (28%–32%) and has an aggressive course in the Asian Indian population (Wali & Al-Mujaini, 2010). In patients with Muir–Torre syndrome, SGC may be associated with non-polyposis colorectal carcinoma and visceral malignancies (Mulay et al., 2013). Despite complete surgical resection, there is a risk of local recurrence and metastasis and the mortality rate may