Implementation of staging systems in clinical practice for cutaneous squamous cell carcinoma

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Staging systems have been poorly implemented in clinical practice in cutaneous squamous cell carcinoma (CSCC) mainly because guidelines have been essentially based on risk factors rather than in T stage itself. However, its extensive use would be desirable in patient’s management. Forty years after the publication of the First edition of the American Joint Committee on Cancer (AJCC) Staging System, the Eight edition (AJCC-8) was recently published with relevant changes in skin cancer (1), including CSCC. The AJCC-8 considers T1 a CSCC <2 cm of horizontal size, T2 a tumor ≥2 cm up to 4 cm and T3 a tumor ≥4 cm. Also, the AJCC-8 considers T3 a tumor with a thickness >6 mm, with perineural invasion (of nerves ≥0.1 mm or of nerves deeper than the dermis) and when slight bone erosion exists. A CSCC is classified as T4 if extensive bone invasion exists or when invasion through the foramen of the skull is developed.

The AJCC-8 has been compared with previous staging systems. It showed improvement over the AJCC-7 in terms of homogeneity, monotonicity and distinctiveness (2,3). It has also showed overlap with the Brigham and Women’s Hospital’s (BWH’s) alternative staging system (3), which is also able to stratify CSCCs located out of the head and neck (4). While the AJCC-7 (5) and the BWH’s (6) alternative staging system have proven usefulness in immunosuppressed patients, being the later better than the former (6) there was a lack of information in this regard concerning the AJCC-8.

Immunosuppression is a well-known risk factor for CSCC. Particularly, solid organ transplantation (especially heart, followed by lung, kidney and liver) (7), hematologic malignancies (mainly chronic lymphocytic leukemia and lymphoma) (8), immunosuppressants (over all ciclosporin and azathioprine) (9,10) and HIV (11). CSCC is more aggressive in immunosuppressed patients (11-15). Indeed, immunosuppression is one of the clinical features that defines a CSCC as a high risk one (16). Actually, some authors have proposed that this feature should be used to modify the staging of CSCC (17).

Blechman et al. evaluated a retrospective cohort of 58 immunosuppressed patients with 263 CSCCs using the AJCC-8 and the BWH’s alternative staging system (18). In their cohort of patients, there were 22 organ transplant recipients, 6 patients with HIV and the 32 patients with hematologic malignancies. The majority of tumors were staged as T1/T2 (AJCC-8) and T1/T2a (BWH’s) and there were no significant differences between both systems in terms of prognosis stratification. The risk of disease-specific poor outcome events differed among T stages in both evaluated staging systems. On the other hand, the authors observed a small number of poor outcome events differed among T stages in both evaluated staging systems. On the other hand, the authors observed a small number of poor outcome events, which has also been observed in other series of immunosuppressed patients, mainly because of the strict surveillance these patients are managed with (19). The authors concluded that both these staging systems stratify tumors with similar homogeneity, monotonicity and distinctiveness in their cohort of immunosuppressed patients, which confirms the overlap between both systems in immunosuppressed patients too. Both these systems may be used in patients...
with immunosuppression to stratify their risk. The implementation of staging systems in clinical practice is of great importance since it will help in comparing outcomes and designing future studies and its extensive implementation will also help in refining these systems in the future.

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Footnote

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