Dermatology

Skin Cancer – Letter

Dermatology
DOI: 10.1159/000539926

Received: May 21, 2024
Accepted: June 18, 2024
Published online: June 20, 2024

Re: Regarding the Predictors of Recurrence and Progression in Poorly Differentiated Cutaneous Squamous Cell Carcinomas

Gabriele Roccuzzo[a] Rebecca Senetta[b] Simone Ribero[a]

[a]Department of Medical Sciences, Section of Dermatology, University of Turin, Turin, Italy; [b]Department of Oncology, Pathology Unit, University of Turin, Turin, Italy

We welcome the comments of Bao et al. regarding our recently published paper "Predictors of Recurrence and Progression in Poorly Differentiated Cutaneous Squamous Cell Carcinomas: Insights from a Real-Life Experience" [1]. As current guidelines acknowledge the challenge of identifying high-risk factors in cutaneous squamous cell carcinomas (cSCC) due to the diverse evidence deriving primarily from small and heterogeneous retrospective studies, our research aimed to contribute to reducing this knowledge gap [2, 3]. Hence, focusing on poorly differentiated (G3) cSCCs, we employed logistic regression models to identify the potential predictors of skin recurrence, lymph node/metastatic progression, and both events. Our findings suggest that lymphovascular invasion should be regarded as a key risk factor for recurrence/progression in this subset of patients. In conducting this analysis, we adhered to the statistical guidelines referenced by Bao et al., which suggest a ratio of one covariate per ten events for logistic regression models [4]. Specifically, we first performed univariate logistic regressions to evaluate the association between individual clinical-histological features and the outcomes of interest. Then, we proceeded with the multivariate logistic regressions, using the Akaike information criterion for model selection [5]. This approach allowed us to balance goodness of fit with model complexity, thereby mitigating the risk of overfitting and enhancing the generalizability. With 32 events, we adopted a conservative approach by selecting a 3-variable model for skin recurrence/distant progression and a 2-variable model for the occurrence of both events. Regarding the dependent variables in the univariate logistic regression model, we exclusively listed those that were statistically significant (i.e., $p < 0.05$) in the first step of the analysis. This approach helped us avoid reporting up to 30 variables per outcome, which would have resulted in a 90-line table for the univariate models alone. In summary, our results underscore the significance of identifying lymphovascular invasion as a concerning histological feature in G3-cSCC, in line with the guidelines set by the National Comprehensive Cancer Network across all differentiation grades [6]. Exploring the potential long-term benefits of additional adjuvant therapies, such as radiation therapy, on tumor-specific survival for these patients will require large-scale randomized clinical trials, which, as of now, have not been documented in the literature [7]. In the meantime, real-world data can offer clinicians useful insights into the complex interplay between clinical and histological features in this subset of patients.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

Funding Sources

Partial financial support was received from the Rete Oncologica del Piemonte e Valle d'Aosta (to R.S.).

Author Contributions

G.R., R.S., and S.R. equally contributed to the implementation of the article.

karger@karger.com
www.karger.com/drm

Correspondence to:
Gabriele Roccuzzo, gabriele.roccuzzo@unito.it

Karger

References

1 Roccuzzo G, Orlando G, Rumore MR, Morrone A, Fruttero E, Caliendo V, et al. Predictors of recurrence and progression in poorly differentiated cutaneous squamous cell carcinomas: insights from a real-life experience. Dermatology. 2024;240(2):329–36. https://doi.org/10.1159/000535040

2 Stratigos AJ, Garbe C, Dessinioti C, Lebbe C, van Akkooi A, Bataille V, et al. European consensus-based interdisciplinary guideline for invasive cutaneous squamous cell carcinoma. Part 1: diagnostics and prevention-update 2023. Eur J Cancer. 2023;193:113251. https://doi.org/10.1016/j.ejca.2023.113251

3 Ribero S, Stucci LS, Daniels GA, Borradori L. Drug therapy of advanced cutaneous squamous cell carcinoma: is there any evidence? Curr Opin Oncol. 2017;29(2):129–35. https://doi.org/10.1097/CCO.0000000000000359

4 Walters SJ, Campbell MJ, Machin D. Medical statistics: a textbook for the health sciences. 5th ed. John Wiley & Sons; 2021.

5 Bozdogan H. Model selection and Akaike's Information Criterion (AIC): the general theory and its analytical extensions. Psychometrika. 1987;52(3):345–70. https://doi.org/10.1007/bf02294361

6 Schmults CD, Blitzblau R, Aasi SZ, Alam M, Andersen JS, Baumann BC, et al. NCCN Guidelines® insights: squamous cell skin cancer, version 1.2022. J Natl Compr Canc Netw. 2021;19(12):1382–94. https://doi.org/10.6004/jnccn.2021.0059

7 Ribero S, Quaglino P, Roccuzzo G. Unveiling cutaneous adverse events and prognosis in immunotherapy for melanoma and squamous cell carcinoma. Br J Dermatol. 2024;191(1):12. https://doi.org/10.1093/bjd/ljae092