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Interference between tumor mutational burden, HPV status, immune signatures and outcome in patients with head and neck cancer treated with chemoradiotherapy: Results from a multicenter retrospective study of the German Cancer Consortium Radiation Oncology

I. Tinhofer[*,1,9], T. Eder[1], A. K. Hess[9], V. Fleischer[1], P. Balermpas[2], C. Rödel[2], A. Linge[3], M. Krause[3], M. Baumann[3,10], M. Stuschke[4], D. Zips[5], A. L. Grosu[6], A. Abdollahi[7], J. Debus[7], U. Ganswindt[8], C. Belka[8], S. Pigorsch[8], G. Multhoff[8], S. E. Combs[8], V. Budach[1,9]

German Cancer Research Center (DKFZ), Heidelberg, and the German Cancer Consortium (DKTK) partner sites Berlin[1], Frankfurt[2], Dresden[3], Essen[4], Tübingen[5], Freiburg[6], Heidelberg[7], München[8], Germany;
[9]Department of Radiooncology and Radiotherapy, Charité-University Hospital Berlin, Berlin, Germany;
[10] German Cancer Research Center (DKFZ), Heidelberg, Germany

[*] Corresponding author, email: ingeborg.tinhofer@charite.de

Tumor mutational burden as well as extent and quality of tumor immune-cell infiltration have previously been established as biomarkers of efficacy in immune checkpoint inhibitor trials. Their value for predicting outcome after concurrent chemoradiation, a treatment regimen currently evaluated for combination with immune checkpoint inhibitors remains largely unknown. In the talk, the results from a recent multicenter biomarker study of the prognostic role of tumor mutational burden, immune expression profiles and the HPV status in locally advanced head and neck squamous cell carcinoma treated with definitive chemoradiation will be presented. The value of the estimation of tumor mutational burden by targeted versus whole exome sequencing will be discussed. Results of an interference of tumor mutational burden with immune signatures determined by the nanoString PanCancer Immune panel analysis will be presented. Finally, the associations of tumor mutational burden with patient outcome parameters will be presented.