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Editorial
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Treatment De-escalation in HPV + OP-HNSCC

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Editorial

Head and neck cancer is the sixth most common cancer worldwide, accounting for 3% to 5% of all cancers [1]. HPV-OPC has several unique characteristics, including presentation in younger patients, better response rates to treatment, and better prognosis compared to alcohol- and smoking related HNSCC [2]. Thus, HPV infection status is now one of the most important prognostic factors in patients with HNSCC. In the era of treatment de-escalation particularly in the HPV+OPSCC patients, treatment with single modality such as TORS without concurrent adjuvant therapy with close surgical margins may be considered for observation alone. I would further reinforce this statement by drawing our attention towards the mechanism in which the HPV leads to the development of SCC in head and neck. The HPV family is a group of double-stranded, non-enveloped, small DNA viruses with an icosahedral capsid that are widely prevalent among human populations. There is a significant difference between the classical alcohol/smoking related carcinogenesis versus HPV mediated carcinogenesis in HNSCC. While classical alcohol- and smoking-related HNSCCs show p53 mutations, including "disruptive p53 mutation," resulting in worse clinical outcomes with more aggressive behavior [3], HPV-positive HNSCCs basically harbor the wild-type p53 [4]. The inactivation of p53 by HPV16 E6 results in p53 mutations being quite rare, leading to better prognosis.

Furthermore, HPV-positive HNSCCs generally display less genomic complexity than do traditional HPV-negative HNSCCs, as indicated by several whole-exome sequencing analyses of HNSCC [5]. Apart from the difference in the molecular mechanism of carcinogenesis in HPV positive OPSCC the presence of field cancerization also demonstrates to have a strong influence on the prognosis in HPV positive OPSCC.

In conclusion, de-escalation of treatment and use of single modality would suffice in the management of OPHNSCC.

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