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*abstract*

## **Quality Of Life Assessment in Head and Neck Cancer Patients Undergoing Radiation Therapy in a Tertiary Referral University Hospital**

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DOI: 10.69690/ODMJ-018-3101-6898



Asia and Middle East Society for Radiation Therapy and Oncology, 2026

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## Quality Of Life Assessment in Head and Neck Cancer Patients Undergoing Radiation Therapy in a Tertiary Referral University Hospital

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**DOI:** [10.69690/ODMJ-018-3101-6898](https://doi.org/10.69690/ODMJ-018-3101-6898)

**Introduction:** There is considerable post-treatment morbidity in survivors of head and neck cancer (HNC) despite improved survival following multimodality therapy. Assessment of health-related quality of life (HR-QoL) gives valuable information about functional and psychosocial sequelae of radiation therapy (RT), especially in less-studied populations like South Asians.

**Methodology:** A prospective observational study was conducted between August 2023 and December 2024, including biopsy-proven HNC patients receiving curative-intent RT (definitive or adjuvant). The EORTC QLQ-HN35 questionnaire (Urdu/English, interviewer-assisted) was administered at baseline and 12 ± 2 weeks post-RT. Mean ± SD were calculated for each domain. Pre- and post-treatment differences were analyzed using paired t-tests, while multivariate analysis (GLM-MANOVA) identified factors associated with HR-QoL outcomes.

**Results:** Fifty-six patients (mean age, 49 ± 13 years; male sex, 78.6%) were included in the analysis. There was a marked deterioration of xerostomia

( $p = 0.004$ ), pain ( $p = 0.011$ ) and taste/smell ( $p = 0.018$ ), whereas social contacts ( $p = 0.048$ ) and sexuality ( $p < 0.001$ ) improved after therapy. Tumor site ( $p < 0.001$ ), histological subtype ( $p < 0.001$ ) and marital status ( $p < 0.001$ ) were the main HR-QoL predictors detected. Both oropharyngeal/hypopharyngeal locations were related to more post-treatment pain and social-eating problems.

**Conclusion:** Within three months after curative-intent RT, HNC patients showed worsening of xerostomia, pain, and sensory loss, with improvement in social contact and sexuality. Tumor site, histopathology, and marital status were key predictors of HR-QoL, demonstrating anatomical, biological, and psychosocial influences. Targeted follow-up and supportive care are important for future studies integrating patient-reported and objective outcomes to personalize survivorship care.

**Conflict of interests:** The authors declare no conflict of interests.

**Funding:** This research received no specific grant

from any funding agency in the public, commercial, or not-for-profit sectors.

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