Impact of the COVID-19 pandemic on Stage and Incidence of Head and Neck Cancer: A Rapid Review and Meta-Analysis

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Abstract

Objectives: This rapid review aims to evaluate the impact of the COVID-19 pandemic on incidence of head and neck cancer (HNC) and stage distribution at diagnosis. Design: Rapid Review and Meta-analysis Participants: comparative data for new HNC patients between a pre-pandemic cohort (before March 2020) and a pandemic cohort (after March 2020 during the lockdown period). Main Outcomes Measured: data on tumour stage, incidence, referral pathway (number of new patient referrals) or workload levels (number of HNC treatments). Data on stage were summarised as odds ratios (OR) with 95% confidence intervals (CI), data related to changes in numbers of diagnoses, referrals and workload levels were summarised as a narrative synthesis. Results: 31 reports were included in this review. Individually 16 out of 23 studies did not show a significant impact on stage relative to the pre-pandemic period. However, the meta-analysis revealed that patients diagnosed with HNC during the pandemic were 16% more likely to have nodal involvement (OR=1.16; 95% CI 1.00–1.35), 17% more likely to have a late overall stage (OR=1.17; 95% CI 1.01–1.36), and 32% more likely to present with advanced tumour extent (T3 and T4 stage) (OR=1.32; 95% CI 1.08–1.62). Data on incidence was extremely limited and not currently sufficient to assess trends in burden of disease. Conclusions: This review indicates that during the COVID-19 pandemic there was upstaging of HNC at diagnosis, suggesting the provision of care to HNC patients was significantly affected.

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