

Osteoradionecrosis of the jaw: a window of opportunity

An audit into the timing of dental extractions pre-head and neck radiotherapy and the prevalence of osteoradionecrosis

Ward, R., Kanani, R. & Romeed, S. An audit into the timing of dental extractions pre-head and neck radiotherapy and the prevalence of osteoradionecrosis. Br Dent J (2022).

<https://doi.org/10.1038/s41415-022-3992-5>

The prevalence of head and neck cancer (HNC) has increased considerably in recent years with the majority of patients undergoing radiotherapy treatment (RTX) which is regularly supplemented with surgery and/or chemotherapy. Serious chronic complications such as osteoradionecrosis of the jaw (ORNJ) have been shown to substantially impact the patients' quality of life owing to ORNJ's challenging management and often painful nature. Local trust guidelines only allow for a short time frame to carry out dental assessments and extractions prior to commencing cancer treatment in order to optimise patient outcomes. Moreover, to reduce the incidence of ORNJ, the guidelines by the Royal College of Surgeons (RCS) advocate a minimum period of ten days between extractions and commencement of radiotherapy to allow for healing, thereby giving the head and neck team just over a week to plan and complete dental treatment.

To investigate the relative timings of dental extractions compared to the RCS guidelines, Ward et al., conducted an audit including 154 patients who received RTX for HNC at Queen Alexandra Hospital in Portsmouth between July 2016 and August 2017. The results revealed that only 125 (81.2%) patients were dentally assessed prior to the commencement of RTX; nevertheless 30.5% more compared to 2017. Patients who were not dentally assessed were mainly edentulous patients or those undergoing palliative treatment. 102 patients (81.6%) required dental extractions which were carried out within a mean time of 5.7 days. Only 1 patient in the investigated cohort breached the recommended 10-day healing period due to urgency of treatment. In fact, 77.5% of cases requiring extractions were allowed more than 21 days for healing and overall, only 2 patients developed ORNJ (1.3% ORNJ rate); one despite a healing time of 23 days and the other following extractions during RTX after the patient had initially refused pre-RTX dental treatment.

The authors conclude that while sufficient healing time does not eliminate the risk of developing ORNJ, a thorough pre-RTX dental assessment will aid to minimise the incidence of severe side-effects of HNC therapy such as ORNJ. Given the narrow window of opportunity available to the head and neck team to carry out preventative treatment, effective interdisciplinary communication is of utmost importance and a clear justification should be documented for patients who do not require a pre-RTX dental assessment.

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Please do suggest an image idea if something comes to mind:



Patient undergoing radiotherapy of the head and neck wearing a custom mask