Oral Oncology 99 (2019) 104333

Contents lists available at ScienceDirect

Oral Oncology

journal homepage: www.elsevier.com/locate/oraloncology

Letter to the editor

Limiting radiotherapy field to ipsilateral side only in unresected lateralised HPV positive N2b squamous cell carcinoma of the tonsil

Dear Sir,

We read with interest the recently published article 'Occult contralateral nodal disease in oropharyngeal squamous cell carcinoma patients undergoing primary TORS with bilateral neck dissection' by McMullen et al. [1]. Although this is a retrospective study involving a small number of patients (n = 32) but it is important information from leading cancer centres, looking at the incidence of contralateral pathological positive neck lymph nodes in oropharyngeal cancer patients with pT1 and pT2 cancers treated with trans oral robotic surgery and bilateral neck dissection. Out of 27 patients with radiographically negative contralateral neck preoperatively, there were only two (7.4%) patients with pathologically positive contralateral neck nodes and for p16 positive tumours, the rate was 5%.

Our single-centre experience of contralateral neck metastases in lateralised resectable oropharyngeal squamous cell carcinoma showed that out of 57 patients (disease ranging from T1-T4 and N0-N3), there were only 5 patients with occult contralateral nodal metastases [2]. Specifically for Human papilloma Virus (HPV) positive patients (52 out of total 57), there were only 2 cases of occult contralateral neck metastases; one from a T2 N2a tonsil cancer and second with T3 N2a tonsil cancer.

Rackley et al. [3] showed post-operative unilateral neck radiotherapy in T1 - T2 oropharyngeal carcinoma (n = 81; 51% with T2 tumours, 59% with N2b disease and 69% with high risk features such as extracapsular spread present or involved margin < 5 mm) was safe with no contralateral recurrences identified, with a median follow up of 5.7 years, and a 5 year loco-regional control rate of 95.4%. Currently a UK based phase II/III trial is recruiting patients aiming to reduce the intensity of adjuvant treatment in patients undergoing surgery for HPV positive oropharyngeal cancer (PATHOS trial) [4]. This trial also restricts the radiotherapy field to the unilateral neck only for lateralised T1-T3, N0-N2b disease. In this trial, the lateralised tumour is defined as "tonsillar tumour confined to the tonsillar fossa or extending onto or into the adjacent base of tongue and/or soft palate by less than 1 cm" [5].

A comprehensive literature-based critical review of 11 studies with 1116 patients who were treated to the unilateral neck alone, showed that the risk of regional failure in the contralateral untreated neck was 0.77% in T1, 2.99% in T2, and 2.62% in N2 disease. The majority of these regional failures were successfully salvaged with neck dissection. The most significant prognostic factor for contralateral regional failure was midline involvement. HPV status was not reviewed in this study [6].

Recent consensus guidelines for radiotherapy outlining, suggest expansion of the gross tumour volume by 5 mm rather than the historical standard 10 mm to create a clinical target volume [7]. A recent retrospective study by Burr et al. [8], in 134 patients showed that even omitting clinical target volume in unselected p16 positive oropharyngeal cancer could be relatively oncologically safe. There were 14 loco-regional failures (10%), and in 10 out of these 14 failures, these were in-field failures. The treatment failure was related to age greater than 70 years and having a T4 tumour.

With improved survival outcomes in the HPV positive patient population, safe reduction in the extent of radiotherapy is feasible and it will reduce treatment related morbidity. The authors feel that there is a definite case for omitting contralateral neck elective irradiation for unresected HPV positive lateralised T1-T2 with N2b squamous cell carcinoma of the tonsil. However, this still needs to be verified in prospective trials.

Declaration of Competing Interest

All authors declare no conflict of interest.

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https://doi.org/10.1016/j.oraloncology.2019.06.014
Received 7 June 2019; Accepted 8 June 2019
Available online 12 June 2019

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