Clinical Question:

For people with early squamous cell carcinoma of the oral/anterior tongue (pN0/pN1) does postoperative radiation unilateral or bilateral neck compared to no RT result in better local/regional control and improved overall survival?

Evidence summary

A prospective study (Ch'ng et al., 2014), two systematic reviews (Brown et al., 2012, Huang et al., 2009) and a series of retrospective studies (Shrime et al., 2010, Gokavarapu et al., 2015, Barry et al., 2017, Huang et al., 2010, Liao et al., 2012) addressed this clinical question.

The retrospective studies were all of low quality, the studies were inconsistent and included small numbers of patients. There was selection bias within the studies and no real detail was provided on the site of radiation therapy.

There is no strong evidence-base to generate a recommendation on the use of radiation to the neck in patients with squamous cell carcinoma of oral and anterior tongue with post-operative pT1-T2 pN0-N1.

The studies addressing the prognostic factors to indicate treatment in this patient group were more consistent (Huang et al., 2009, Liao et al., 2012, Huang et al., 2010, Shrime et al., 2010, Cooper et al., 2004, Bernier et al., 2005). Patients with the following risk factors should be referred to a radiation oncologist:

- Tumour depth of invasion (>4 mm)
- Lymphovascular invasion (LVI)
- Perineural invasion (PNI)
- Margin closeness
- Single ipsilateral node without nodal extension
- Recurrent disease

Recommendation:

All patients with squamous cell carcinoma of oral and anterior tongue with post-operative pT1-T2 pN0-N1 with the following risk factors should be referred to a radiation oncologist:

- Tumour depth of invasion (>4 mm)
- Lymphovascular invasion (LVI)
- Perineural invasion (PNI)
- Margin closeness
- Single ipsilateral node without nodal extension
- Recurrent disease

Quality/Level of Evidence: Low

Grade of recommendation: Strong

Good practice point

All patients should be discussed at a multidisciplinary team meeting and referred to a radiation oncology centre with a specialist interest in head and neck cancer (e.g. specialist dental care, dietician, speech and language therapy, radiation therapy and mould room expertise, specialist nursing support, psycho-oncology, social work, physiotherapy).

Practical issues
• Due to the nature of this patient goup – patients have a particular need for consultation with CNS (RT liason). • Patients should have the opportunity for more than one consultation with the radiation oncologist.

Abbreviations

CNS	Clinical Nurse Specialist
LVI	Lymphovascular invasion
PNI	Perineural invasion
RT	Radiation

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