

Omitting radiotherapy after head and neck cancer surgery



Omitting postoperative radiotherapy to the pathologically node-negative neck in patients with primary head and neck squamous cell carcinoma results in excellent disease control in the unirradiated neck, according to a recent study.

In the single-centre, phase 2 trial, Jessica A Contreras (Washington University, St Louis, MO, USA) and colleagues enrolled 73 patients with head and neck squamous cell carcinoma who underwent surgical resection and neck dissection, with a pathologically node-negative neck and high-risk features mandating postoperative radiotherapy to the primary tumour site, involved neck, or both did not receive radiotherapy to the pathologically node-negative neck. In the 72 evaluable patients, affected sites were the oropharynx (n=37), oral cavity (n=14), hypopharynx

(n=4), larynx (n=16), and unknown primary tumour (n=1). The primary endpoint was disease recurrence in the unirradiated neck. Secondary endpoints included local control, regional control, progression-free survival, overall survival, and quality of life outcomes.

At a median follow-up of 53 months (range 0–120·8), two patients had treatment failure (recurrence) in the unirradiated neck—both locally and of the pathologically node-negative unirradiated neck. Disease control in the unirradiated neck was otherwise high at 97% (95% CI 93–100). 5-year local control, regional control, progression-free survival, and overall survival were 84%, 93%, 60%, and 64%, respectively. Quality of life was similar to baseline at 12 and 24 months after postoperative radiotherapy (p>0·05).

“In head and neck cancer, both total dose and volume of radiation are

important toxicity determinants. This is a nice uncontrolled prospective trial limited by the fact that these were patients treated primarily with surgery”, explained Everett Vokes (University of Chicago, Chicago, IL, USA).

“This study validates what is practiced in some centres, where pathologic disease status in one neck node is used to de-intensify postoperative radiation in all nodal basins as a beneficial risk predictor for those patients,” commented Robert Ferris (University of Pittsburgh School of Medicine, Pittsburgh, PA, USA). “Elective nodal irradiation is often not needed, and this study—though small, single-institution, and somewhat heterogeneous—provides one marker for selecting those who could avoid unnecessary radiation.”

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