

## Patterns of Neck Failure after Concurrent Radiochemotherapy without Planned Neck Dissection in Node-positive Head and Neck Cancer

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**Purpose** : The necessity for post-radiochemotherapy neck dissection is controversial in head and neck cancer (HNC). This is to report the treatment outcomes of the node-positive HNC patients who were managed with concurrent radiochemotherapy (CRCT) and “watch & see” policy for the neck.

**Materials and Methods** : From Oct. 1994 till May. 2006, 811 HNC patients received definitive radiation therapy at Samsung Medical Center. We retrospectively analyzed the treatment outcomes of 64 node-positive non-nasopharyngeal HNC patients who received CRCT but no pre-planned neck dissection.

**Results** : The primary sites were the oropharynx in 30 patients (46.9%), the hypopharynx in 20 (31.3%), the larynx in 10 (15.6%), and the oral cavity in 4 (6.3%). Eight patients (12.5%) were with N1 disease, 52 (81.3%) with N2 disease, and four (6.3%) with N3 disease. All received platinum-based chemotherapy concurrent with curative radiation therapy. The median follow-up period was 21 (0–139) months, and overall survival (OS) and neck control rates of all patients at 2

and 5 years were 68.2%, 61.4%, and 75.0%, 75.0%. There were 17 patients (26.6%) who failed in the neck : as a sole site in seven patients (10.9%) ; combined with primary failure in eight (12.5%) ; and combined with metastasis in two (3.1%). Salvage treatment was attempted in eight patients and was successful in three (37.5%). OS rates at 2 and 5 years of the patients without neck recurrence were 80.0%, 72.0%, while those with neck failure were 25.6%, 25.6%. Radiologic response in the neck assigned at one month of CRCT completion was highly predictive of neck control. Neck control rates at 2 and 5 years were 88.5%, 88.5% in 50 patients who achieved radiologic complete remission (rCR), and 42.9%, 42.9% in seven with partial remission, and 14.3%, 14.3% in seven with stable or progressive disease ( $p < 0.001$ ).

**Conclusions** : CRCT without planned neck dissection proved to be a highly effective strategy after achieving rCR. However, based on unsatisfactory outcomes following neck failure, early surgical intervention especially in patients achieving less than rCR should be considered.