head and neck cancer

COMPARISON OF THERAPEUTIC EFFECT OF TOTAL LARYNGECTOMY VS LARYNX-PRESERVATION APPROACH FOR T4A LARYNX CANCER: A MULTICENTER RETROSPECTIVE STUDY

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Aim: Organ-preservation approach including (chemo)radiation has been established as standard treatment for advanced larynx cancer. However, in T4a disease with thyroid cartilage invasion, the optimal frontline treatment has not been evaluated within controlled trials. In this multicenter retrospective review, we aimed to assess and compare the therapeutic outcomes of total laryngectomy (TL) and larynx preservation (LP) in patients with T4a larynx cancer.

Methods: Patients who were diagnosed larynx cancer with thyroid cartilage invasion and treated with either TL or LP in 7 institutes between Jan 2000 and Dec 2012 were examined. Patients were stratified by primary treatment and survival was compared using log-rank tests. Cox proportional hazards regression model were performed to determine the effect of treatment and other clinical parameters on therapeutic outcomes.

Results: Eighty-nine patients were included. Median age was 67.15 years. ECOG performance status (PS) was 0-1 in 80 (89.9%) and 2 in 9 (10.1%). Median follow-up time was 27.2 months. Among them, 53 patients (59.6%) were treated with primary TL and 36 patients (40.4%) with LP. Median progression-free survival (PFS) of TL group was not reached at the time of analysis and significantly longer than LP group showing 13.5 months (CI: 6.5-20.6) (P < 0.001). On univariate analysis, along with primary treatment, ECOG PS (P = 0.048) and clinical N stage (P = 0.034) affected PFS significantly. Multivariate analysis revealed that primary treatment (TL vs LP, HR 0.269, CI: 0.133-0.545, P < 0.001) and clinical N stage (P = 0.034) affected PFS significantly. Multivariate analysis revealed that primary treatment (TL vs LP, HR 0.269, CI: 0.133-0.545, P < 0.001) and ECOG PS (0-1 vs 2, HR 3.568, CI: 1.395-9.128, P = 0.008) were independent predictors of PFS. Intriguingly, beneficial effect of TL over LP was more prominent in patients showing lower nodal stage (N0-1).

Conclusions: In this analysis, patients treated with TL showed longer PFS than with LP. This result suggests that primary TL might be a better therapeutic option for T4a larynx cancer with thyroid cartilage invasion, especially in subjects with limited nodal involvement.

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