The Outcomes of Multi-modality Treatment for Patients with Squamous Cell Carcinoma of Head and Neck (SCCHNC) in Vajira Hospital

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Background: Squamous cell carcinoma of head and neck (SCCHN) is one of the most prevalent cancer among urban Thais. Patients with very early disease can be curable with surgery or radiation alone; however most of the patients present with locally advanced disease and need multi-modality management for definitive treatment including surgery with adjuvant radiotherapy or chemo-radiotherapy, definitive chemo-radiotherapy with or without induction chemotherapy. The outcomes of such multi-modality management have yet been determined.

Method: The retrospective descriptive analysis of patients with SCCHNC who were treated in Vajira hospital during was conducted. Patients with cutaneous squamous cell carcinoma and carcinoma of nasopharynx and paranasal sinuses were excluded. Baseline characteristics including age, sex, smoking or not smoking, primary site of tumor (oral cavity (OR), oropharynx (OP), hypopharynx (HP), supraglottic/transglottic larynx (SL) and glottic larynx (G)), AJCC TNM staging, pathological tumor differentiation, modality of definitive treatment received, time from start to finishing radiotherapy, response to definitive treatment and serious toxicities. The primary objectives were to determine OS and 3-year OS of the whole studied population and by primary tumor sites. Secondary objectives were to determine PFS, independent factors of survival, response to induction chemotherapy and prevalence of serious toxicities during treatment.

Results: There were 216 patients. Medium follow-up was 51.49 months. Median age was 58.8 months (IQR 23.7-85.7). Most of the patients were male (182, 84.3%) and smokers (173, 80.1%). Twenty three patients (10.6 %) presented with stage I, 25 (11.6 %) stage II, 39 (18.1 %) stage III, 95 (44 %) stage IIVa and 34 (15.7 %) stage IVb. The modality of treatments included surgery only in 8 patients (3.7 %), RT only 31 (14.3%), surgery and adjuvant RT/CCRT 47 (21.8 %), definitive CCRT 70 (32.4 %) and induction chemotherapy and definitive CCRT 54 (25%). OS was 24.1 months (IQR 14.3-50.1) and 3-year OS was 52.2% (95%CI 45%-59%). The number of patients (N, %) and 3-year OS (%, 95%CI) by primary sites were OC (50, 23.1%; 44.1% (30-58), OP (66, 30.6%, 46.7(34-59), HP (31, 14.4%; 40% (23-57), SL (24, 11.1%; 54.8% (29-74), and G (45, 20.8%; 74.8%(58-86). The independent prognostic factors of inferior survival were T4 lesions, OC and HP primaries and failure to definitive treatment. The response rate to induction chemotherapy was 72.2%; however it did not contribute to improved survival.

Conclusions: The outcomes of patients in the study was comparable to previous studies. Patients with T4 lesions, OC and HP primaries and failure to definitive treatment are associated with inferior survival. Such patients need further studies to determine novel multi-modality managements.