Surival benefit of adjuvant chemotherapy VS active surveillance in locally advanced nasopharyngeal carcinoma in Siriraj hospital

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Background: Adjuvant chemotherapy (AC) is not standard of care but commonly utilized after concurrent chemoradiotherapy (CCRT) in locally advanced nasopharyngeal carcinoma (LA-NPC). Prospective randomized studies showed unclear overall survival benefit of AC compared with active surveillance (AS). Retrospective study was conducted to evaluate the survival benefit of AC in Thai population.

Method: Retrospective medical record review of histologically confirmed LA-NPC patients who underwent definitive CCRT at Siriraj Hospitals between 2008 - 2017 were conducted. Baseline patient characteristics, treatment modality and survivals were abstracted. Patients who received AC were compared with AS patients. The primary objectives were overall survival (OS) and disease-free survival (DFS). Toxicities were also analyzed. The Kaplan-Meier with log-rank test were used for analysis. A p-value less than 0.05 was used to indicate statistical significance. All statistical tests were two sided.

Results: Median follow up time was 60.4 months. A total of 290 LA-NPC patients were included. Median age was 50.4 years old (range 16-77). 241 patients (83%) received CCRT plus AC while 49 patients received CCRT alone. Predominately AC was the combination of cisplatin and 5FU (90%). Survival analysis showed significant difference between patients who received and did not receive AC. Median DFS in AC arm was 120.03 months vs 58.43 months in AS arm (HR 0.41, 95% CI 0.25-0.66; p < 0.001) Median OS in AC arm was not reached (NR) vs 65.53 months in AS arm OS (HR 0.43, 95% CI 0.26-0.69; p = 0.001). Age and clinical staging were significantly related to OS and DFS. Weight loss and decline of renal function were noticed but not statistically significant between two groups.

Conclusions: AC should be considered for patients with LA-NPC who completed definitive CCRT. However, with a small patient number and retrospective in nature. We need more patients to validate our result. Multi-center collaboration is necessary.