Background: While prognosis of recurrent/metastatic (R/M) nasopharyngeal cancer (NPC) patients remains poor, data of tolerability and toxicity of R/M patients who received systemic chemotherapy was limited and not well-reported. Thus, we retrospectively evaluated tolerability and efficacy of palliative chemotherapy for R/M NPC patients.

Method: NPC patients were identified through the Ramathibodi Cancer Registry and Head and Neck Cancer Research University Network databases. Patients with metastatic at diagnosis and relapsed after initial treatments were included. Patient characteristics, treatment modalities, toxicity, tolerability, and survival outcome were retrospectively abstracted. Tolerability of chemotherapy was defined by dose reduction, hospitalization, delayed, and/or termination of chemotherapy.

Results: A total of 144 R/M NPC patients were eligible for analysis. In metastatic at diagnosis group (n=46), bone (52%) and liver (41%) were the most common site of metastasis. In patients with relapsed (n=98), locoregional recurrence was observed in 31 patients (30%), and distant metastasis was 67 patients (66%). There was no difference in baseline characteristics between both groups. Patients with metastasis at presentation had shorter OS when compared with locoregional group (12.3 vs 26.7 months; p=0.014). A total of 99 R/M patients who received palliative chemotherapy (69%), while 31 patients (22%) did not. In 1st line setting, doublet chemotherapy was preferred (85.9%). Median OS of R/M patients who received 1st line doublet chemotherapy was significantly longer than monotherapy (18.2 vs 7 months; p=0.022). There was no significant difference between cisplatin- and carboplatin-based chemotherapy (17.4 vs. 19 months; p=0.37). No significant difference between the metastasis and relapsed groups was observed in dose reduction (p=0.61), delay of chemotherapy (p=0.51), interruption (p=0.57), hospitalization during CRT (p=1.00), or termination of treatment (p=0.256).

Conclusions: Metastatic NPC patients had better survival benefit when received more lines of chemotherapy. Chemotherapy for R/M NPC was well tolerated although it might be delayed or interrupted. Doublet chemotherapy provided more survival benefit than single agent in 1st line treatment of R/M NPC. Efficacy of cisplatin and carboplatin based chemotherapy were comparable. Further phase III trials of 2nd or later line chemotherapy for R/M NPC patients are needed.