The outcomes of metronomic tegafur-uracil chemotherapy on locally advanced head and neck squamous cell carcinoma – Real-World Experience in a Taiwanese Cohort

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BACKGROUND

Head and neck squamous cell carcinoma (HNSCC) was the 8th most common cancer worldwide in 2018. Incidence and mortality rates of HNSCC vary by geographical location, and Taiwan has one of the world’s highest incidence rates of oral cancers. Metronomic chemotherapy inhibits tumor growth by continuous administration of lower-dose chemotherapy. Our study aims to demonstrate the outcomes of metronomic chemotherapy with tegafur-uracil (UFUR) in locally advanced HNSCC.

METHOD

This is a retrospective study. We included 240 patients with locally advanced (stage III or non-distant metastatic stage IV) HNSCC. Operable patients without post-operative high-risk features were excluded. High-risk features were positive surgical margins, extranodal extension (ENE), perineural invasion (PNI) or lymphovascular invasion (LVI). After standard treatment, 96 patients were further treated with metronomic UFUR and 144 patients were not. The last date of follow-up of this study was 5 April 2020.

RESULTS

There were also no statistical differences between both groups in gender, clinical cancer stage and primary treatment choice. However, there were more hypopharynx cancers in UFUR group and more oral cavity cancers in control group. There were significantly more high-grade features, including LVI (P=0.018), ENE (P<0.001), and positive margin (P=0.025) in UFUR group. The median follow-up duration was 31.16 months (range: 3.80-87.38). The overall survival was not reached in the UFUR group and 54.1 months in control group (p=0.008). For disease-free survival (DFS), the median DFS was 54.5 months (95% CI=40.7-not reached) in the UFUR group and 34.4 months (95% CI=25.2-not reached) in the control group (p=0.03). For distant metastasis-free survival, both groups were not reached (p=0.02). In both groups, primary local recurrence was the most common reason of treatment failure. Overall prevalence of adverse event of UFUR was very low and the most common adverse events were low-grade nausea (3.8%), vomiting (3.3%), neutropenia (1.7%) and mucositis (2.1%).

CONCLUSIONS

In patients with high-risk and unresectable locally advanced HNSCC, adding UFUR as a metronomic chemotherapy after either curative surgery with adjuvant chemoradiotherapy or definitive CCRT found to significantly improve OS, DFS and DMFS rates with tolerable adverse events.