A PHASE II STUDY OF AK104, A BISPECIFIC ANTIBODY TARGETING PD-1 AND CTLA-4, IN PATIENTS WITH METASTATIC NASOPHARYNGEAL CARCINOMA (NPC) WHO HAD PROGRESSED AFTER TWO OR MORE LINES OF CHEMOTHERAPY

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Background Nasopharyngeal cancer (NPC) is common in Southeast Asia, especially in Southern China. Combination of CTLA-4 and PD-1 blockade has consistently demonstrated the increase of the response rates and survival rates of the patients (pts) compared to monotherapy in various tumors.¹ Dual CTLA-4/PD-1 blockade with ipilimumab plus nivolumab provided durable responses in patients with recurrent or metastatic NPC,² suggesting the combination of CTLA-4 and PD-1 blockers have synergistic effect in NPC. Here, this Phase II study present initial safety and efficacy data for AK104, a PD-1/CTLA-4 bispecific antibody, in metastatic NPC pts.

Methods AK104-204 (NCT04220307) is a multicenter, single-arm, open-label study of AK104 in patients (pts) with metastatic NPC who have failed at least two lines of chemotherapy and didn't receive any anti-PD-1/PD-L1 antibodies previously. All patients received AK104 6 mg/kg every 2 weeks until progression or unacceptable toxicity. The primary endpoint was objective response rate (ORR) based on Response Evaluation Criteria in Solid Tumors version 1.1 (RECIST v1.1). Tumor proportion score (TPS)=50% was regarded as PD-L1 positive.

Results As of 6 June 2021, 23 pts were enrolled. Median age was 43[range:19–64] years old, 87.0% was male, 73.9% ECOG performance status was 1. Of 20 efficacy-evaluable pts, the confirmed ORR was 30% (6/20); the disease control rate (DCR) was 70% (14/20). Among them, the ORR was 57.1% (4/7) in pts with PD-L1 positive and the 18.2% (2/11) in pts with PD-L1 negative. Grade 3 treatment-related adverse events (TRAEs) occurred in 21.7% (5/23) of pts. No Grade 4 or 5 TRAEs occurred. Most frequent TRAEs (incidence = 20%) were anaemia (30.4%), white blood cell count decreased (26.1%), hypothyroidism (26.1%), neutrophil count decreased (21.7%), and rash (21.7%).

Conclusions AK104 demonstrated encouraging anti-tumor activity and favorable safety profile in pts with NPC who had disease progression after =2 prior lines of therapy. NPC pts with PD-L1-positive tumors receiving AK104 showed more benefits than those with PD-L1-negative tumors. AK104 for the treatment of NPC should be further evaluated.

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Trial Registration Clinical registration number: NCT04220307

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Ethics Approval This study received ethics approval from Ethics Committee of Sun Yat-Sen University Cancer Center on 04 Dec 2019 (Approval number: A2019-085-01). In accordance with ICH Good Clinical Practice Guidelines and the Declaration of Helsinki, study participants gave informed consent voluntarily before participating in this study.

Consent Written informed consent was obtained from the patient for publication of this abstract and any accompanying images. A copy of the written consent is available for review by the Editor of this journal.

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