In Reply to Doctors Huang et al.

Shang-Wen Chen[1,2,3*], Shih-Neng Yang[1,4], , Ji-An Liang[1,2]

Affiliation

[1]Department of Radiation Oncology, China Medical University Hospital, Taichung Taiwan; [2]College of Medicine School, China Medical University, Taichung, Taiwan, [3] College of Medicine School, Taipei Medical University, Taipei, Taiwan, [4] Department of Biomedical Imaging and Radiological Science, China Medical University, Taichung, Taiwan

Article type: Letter

Address correspondence and/or reprint requests to:

Shang-Wen Chen

Department of Radiation Oncology, Department of Radiation Oncology

No 2. Yur-Der Road Taichung, Taiwan

E-mail: vincent1680616@yahoo.com.tw

Tel: 886-4-22052121-7450

In Response to Huang et al.

To the Editor: We thank Dr. Huang et al. for their interest and thoughtful comments on our recent publication [1]. We did not intend to ignore the prognostic role of human papillomavirus (HPV) status of tumor and pack-years of tobacco smoking [2], and also agree the suggested limitations in this study. First, the consistency of the two variables mentioned above should be validated further before included in the analysis. According to our preliminary investigation (data unpublished) and other two Asian studies [3, 4], there is obvious evidence of the geographic variations in the role HPV in the etiology of oropharyngeal cancer (OPC) between Asian and western patients. In addition, although more than 97% of the OPC patients were recorded to have a history of tobacco exposure, the complete information of pack-years of tobacco smoking was lacking from the retrospective data. Certainly, to avoid the bias due to the two missing prognosticators, there is a need in the future to incorporate the reliable information of these determinants when investigating the impact of volume reduction rate (VRR) for OPC. Also, it is our current work to explore the correlation between the VRR and HPV status in this patient setting.

Second, our results could become more robust if determining the tumor volume on contrast planned adaptive images for all the patients as this approach is appropriate to reduce inter-observer variations. Finally, the printed case number of the subgroup (pGTV > 30 ml, VRR < 0.5) shown in Fig. 4 was wrong and the correct figure should be 19. Nevertheless, the shape of the survival curve was right. In the era with great advances in the image-guided radiotherapy, the VRR itself might represent a response marker combining several biologic parameters. Thus, by using more comprehensive prognostic factor analysis and accurate tumor volume delineation, further prospective studies are essential to confirm its role on head-and-neck cancer, as well as in other application of radiotherapy.

References

1. Yang SN, Liao CY, Chen SW, *et al*. Clinical implications of the tumor volume reduction rate in head-and-neck cancer during definitive intensity-modulated radiotherapy for organ preservation. Int J Radiat Oncol Biol Phys 2011;79:1096-1103.
2. Ang KK, Harris J, Wheeler R, et al. Human papillomavirus and survival of patients with oropharyngeal cancer. N Engl J Med 2010;363:24-35.
3. Chien CY, Su CY, Fang FM, *et al.* Lower prevalence but favorable survival for human papillomavirus-related squamous cell carcinoma of tonsil in Taiwan. Oral Oncol 2008;44:174–179.
4. Li W, Tran N, Lee CS, *et al.* New evidence for geographic variation in the role of humanpapillomavirus in tonsillar carcinogenesis. Pathology 2007;39:217–222.