Comment on 'accelerated hypofractionated chemoradiation for locally advanced head and neck cancer during COVID-19 pandemic: A tertiary care experience'

Dear Editor,

We congratulate Agarwal and colleagues for their study evaluating the role of accelerated hypofractionated chemoradiotherapy (AHCRT) in locally advanced head and neck squamous cell cancer (HNSCC) during the COVID-19 pandemic.[1] All patients were treated with 60 Gy delivered in 2.4 Gy per fraction, with 85% completing their treatment in less than 45 days. The median duration of follow-up was 214 days. Locoregional control at 6 months was 55%. The highest level of acute toxicity was grade 3 mucositis, seen in 18 out of 20 individuals (90%). Eleven out of 20 patients required Ryle's tube feeding, which accounts for 55% of the total. Based on these results, the authors concluded that in a pandemic crisis with limited resources and workforce, it is possible to consider the AHCRT as a feasible therapeutic option for HNSCC as it can significantly reduce the overall treatment time (OTT) while providing comparable local control and manageable toxicities. The present study offers crucial insights into the efficacy and tolerability of AHCRT in HNSCC patients. However, we want to highlight a significant issue that warrants further discussion.

The authors highlighted that a significant concern for AHCRT is the potential for late toxicity, such as chondronecrosis or severe fibrosis, and supraglottic edema, which could result in airway obstruction, leading to temporary or rarely permanent tracheostomy.[1] Nevertheless, other severe late complications such as tooth loss, radiation-induced trismus (RIT), and osteoradionecrosis (ORN) may arise due to radiation-induced vascular damage and fibrosis and significantly impact the quality of life and survival of individuals with HNSCC.[2] Recently, it was shown that tooth loss was apparent in up to 69% of individuals treated with definitive CRT.[3] Furthermore, Umrania *et al.*[4] reported that 58.3% of patients had trismus, which limits oral intake and necessitates using a nasogastric tube. In another research, Topkan *et al.*[5] found that 15.6% and 7.8% of patients obtained RIT and ORN diagnoses after definitive CCRT. As noticeable from Figure 1 provided by Agarwal and colleagues, no dose constraints were applied for the tooth structures, masticatory apparatus, or mandible.[1] Additionally, dose color wash from the same figure clearly demonstrates that significant proportions of either of these structures received the prescribed 60 Gy or more. Therefore, it is rational to anticipate that a significant proportion of patients treated by Agarwal and coworkers will diagnose one or more of these severe complications sooner or later as the follow-up period grows. Because the rates of such severe complications occur after higher doses of RT (50–60 Gy) and AHCRT is more toxic than conventionally fractionated CRT regimens, we recommend delineating these critical structures and using predetermined tolerance dose limits for each to minimize the incidence of these severely debilitating treatment complications.[2] This strategy will not only allow for the prompt initiation of preventive measures but also reveal the exact value of AHCRT in terms of severe late toxicity profile, which is as critical as the survival outcomes in such investigations.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

Efsun Somay[1,2], Erkan Topkan[3], Ugur Selek[4], Berrin Pehlivan[5]

Departments of [1]Oral and Maxillofacial Surgery and [3]Radiation Oncology, Faculty of Dentistry, Baskent University, Ankara, Turkey, [2]Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, Kyrenia University, Girne, Cyprus, [4]Department of Radiation Oncology, Faculty of Medicine, Koc University, Istanbul, Turkey, [5]Department of Radiation Oncology, Faculty of Medicine, Bahcesehir University, Istanbul, Turkey

For correspondence:
Dr. Efsun Somay,
Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, Baskent University, 82. Street No: 26 Bahcelievler, Ankara, Turkey.
E-mail: efsuner@gmail.com

Submitted: 20-Feb-2024
Accepted in Revised Form: 30-Mar-2024
Published: 27-Jun-2024

REFERENCES

1. Agarwal S, Jaiswal I, Shahi UP, Mandal A, Aggarwal LM, Singh A, *et al.* Accelerated hypofractionated chemoradiation for locally advanced head and neck cancer during COVID 19 pandemic: A tertiary care experience. J Can Res Ther 2024;20:404-9.

2. Topkan E, Kucuk A, Somay E, Yilmaz B, Pehlivan B, Selek U. Review of osteoradionecrosis of the jaw: Radiotherapy modality, technique, and dose as risk factors. J Clin Med 2023;12:3025.
3. Somay E, Topkan E, Yilmaz B, Besen AA, Mertsoylu H, Selek U. Predicting teeth extraction after concurrent chemoradiotherapy in locally advanced nasopharyngeal cancer patients using the novel GLUCAR Index. Diagnostics (Basel) 2023;13:3594.
4. Umrania R, Patel D, Patel BC, Singh M, Sanghavi P, Patel H. Survey of psychosocial issues of nasogastric tube feeding in head-and-neck cancer patients. Indian J Palliat Care 2021;27:113-7.
5. Topkan E, Somay E, Yilmaz B, Pehlivan B, Selek U. Valero's host index is useful in predicting radiation-induced trismus and osteoradionecrosis of the jaw risks in locally advanced nasopharyngeal carcinoma patients. BMC Cancer 2023;23:651.

Access this article online	
Website: https://journals.lww.com/cancerjournal	Quick Response Code:
DOI: 10.4103/jcrt.jcrt_367_24	

Cite this article as: Somay E, Topkan E, Selek U, Pehlivan B. Comment on 'accelerated hypofractionated chemoradiation for locally advanced head and neck cancer during COVID-19 pandemic: A tertiary care experience'. J Can Res Ther 2024;20:1106-7.