



Letter to the editor

Prognostic determinants of locally advanced buccal mucosa cancer: Do we need to relook the current staging criteria? – Needs to be interpreted carefully



Dear Sir,

The article by V. Pillai et al, makes an interesting read and I would like to congratulate the authors for the same [1]. The question asked is very pertinent to the present scenario faced by the oncologist treating patients with oral cavity squamous cell carcinoma (OSCC) in the Indian subcontinent. Majority of our patients present with advanced disease [2]. Nearly 36% of the T4 cases that receive curative treatment at our centre are T4b as per the AJCC 8th edition [3]. The two articles by Mair, et al. and V Pillai et al. reiterate the need to revisit the current staging system for buccal mucosa-gingivobuccal sulcus carcinoma (BM-GBS), especially the T4 carcinoma. They also emphasize that the T4a and more importantly, selected T4b OSCC could be treated effectively with multimodality treatment hence also stressing on the fact to bring necessary changes in the guidelines for the treatment of these malignancies.

Pillai V, et al., [1] as is evident, are the proponents of compartmental resection for buccal cancer. They have referred to the article by Mair, et al., [3] who had reported the results of advanced T4a and T4b OSCC, in their discussion. However Mair, et al. have followed the conventional surgical methods for treatment of oral cancer and not the compartmental resection described by Nirav, et al. [4]. It would be interesting to see the results in the two groups, one where compartmental resection has been followed and the other were conventional resection was done.

Mair, et al. in their article have reported a 3-yr overall survival (OS) and disease free survival (DFS) for the entire cohort as 55% and 49% respectively. In their cohort there was a difference in DFS between T4a and T4b whereas there was no difference in the OS (Table 1). The pattern of failure was predominantly local followed by distant (Table 2). The authors have quoted the local recurrence as 50%.i.e. 22 out of the 44 recurrences. When we take the local recurrences with the entire cohort, as done by V Pillai, et al, then the actual local recurrence rates is 10.5% only (Table 2). In contrast the local recurrence rates reported by V Pillai et al. is 17.7%.

V Pillai, et al. have reported a 2-yr OS for their cohort at 59.9% and DFS of 61%. The DFS and OS is slightly different between T4a and T4b lesions (Table 1). In comparison to Mair, et al. the DFS for T4b and the OS for both T4a and T4b are better. This may be due to the fact that Mair, et al. have reported 3-yr survival rates in comparison to Pillai, et al. who have reported a 2-yr survival.

Overall comparing the results from the two articles, which deals with advanced oral cancer (T4a & T4b), compartmental resection does not seem to offer additional advantage to the conventional resection for oral cancer. Though the proponents for compartmental resection say that the surgery is associated with minimal bleeding, the actual blood loss associated with surgery is not mentioned clearly in the article [1,4].

Mair, et al. in their previous publication showed that patients

undergoing multimodality treatment with conventional surgical resection followed by adjuvant treatment based on the histopathology report seem to have an acceptable QoL [5]. Though there is an initial worsening of QoL it seems to improve over time. Similar QoL for patients undergoing compartmental resection would be essential. Also details regarding length of hospital stay, readmission rates in these patients would be valuable information that will help the treating team choose the treatment wisely.

V Pillai et al. have followed the classification of T4b as described by Nirav, et al. [6]. The Class III disease includes those with extension into pterygopalatine fissure, inferior orbital fissure and intracranial space. There are 8 patients belonging to Class III and 43 patients with Class II (Involvement of lateral pterygoid, temporalis and sigmoid notch). The results given are clubbed for class II & III and the authors conclude that the results in terms of 2-yr survival between T4a and the various subdivisions of T4b was not significantly different. This result has to be very carefully interpreted. The details of Class III T4b in terms of the pterygopalatine fissure, infraorbital fissure and intracranial fissure involvement is not clearly mentioned. Once the disease enters the pterygopalatine fissure it gains access to the pterygopalatine fossa and the various skull base foramina [7]. Hence getting a R0 resection in these cases would be technically difficult and if the authors have got an R0 clearing disease in class III type of T4b, it would be informative to know their technique of disease clearance to achieve an R0 at the pterygopalatine fissure, infraorbital fissure and intracranial extension. Hence the concept of considering surgery for the class III subdivision of T4b is highly questionable, especially for OSCC, given the very aggressive nature of the disease.

Hence in conclusion we would like to mention that though we are in agreement for considering multimodality treatment for both T4a and select T4b OSCC, with surgery playing a key role, patients selection for such aggressive approach has to be done carefully. However, considering surgery for class III subdivision of T4b is questionable. Also comparing the outcomes from Mair, et al. and V Pillai, et al. compartmental resection followed by adjuvant therapy does not seem to give any obvious survival advantage over conventional surgery followed by adjuvant therapy. Current evidence is not enough for Compartmental resection for locally advanced buccal mucosa cancers. However, considering higher local recurrence rate in T4b disease (Mair et al.), [3] such an approach can be considered for disease with supra-notch extension.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Table 1

Comparison of the survival among T4a and T4b patients in the Mair, et al. [3] and Pillai V, et al. [1].

Authors	OS	DFS
Mair, et al. (“3-yrs Survival”)	Overall – 55% T4a – 49.6% T4b – 41.1%	Overall – 49% T4a – 65.3% T4b – 42%
Pillai V, et al. (“2-yrs Survival”)	Overall – 59.9% T4a – 64% T4b – 58%	Overall – 61.1% T4a – 64% T4b – 61%

Table 2

Comparison of patterns of failure between the two studies.

Patterns of failure	Mair et al.	Pillai V et al.
Local	22/210 (10.5%)	49/277 (17.7%)
Regional	6/210 (3%)	28/277 (10%)
Distant	13/210 (6.2%)	75/277 (27.1%)

References

- [1] Pillai V, Yadav V, Kekatpure V, Trivedi N, Chandrashekar NH, Shetty V, et al. Prognostic determinants of locally advanced buccal mucosa cancer: Do we need to
- relook the current staging criteria? *Oral Oncol* 2019;95:43–51.
- [2] Torre LA, Bray F, Siegel RL, et al. Global cancer statistics, 2012. *CA Cancer J Clin* 2015;65:87–108.
- [3] Mair MD, Sawarkar N, Nikam S, Sarin R, Nair D, Gupta T, et al. Impact of radical treatments on survival in locally advanced T4a and T4b buccal mucosa cancers: Selected surgically treated T4b cancers have similar control rates as T4a. *Oral Oncol* 2018;82:17–22.
- [4] Trivedi NP, Kekatpure V, Kuriakose MA. Radical (compartment) resection for advanced buccal cancer involving masticator space (T4b): our experience in 30 patients. *Clin Otolaryngol* 2012;37:477–83.
- [5] Mair MD, Nair S, Nikam S, Nair D, Agarwal JP, Chaturvedi P. Longitudinal and cross-sectional assessment of quality of life in surgically treated advanced (T4) cancer of the buccal mucosa. *Oral Surg Oral Med Oral Pathol Oral Radiol* 2017;124(6):529–36.
- [6] Trivedi NP. Oral cancer involving masticator space (T4b): Review of literature and future directions. *Head Neck* 2018;40:2288–94.
- [7] Tashi S, Purohit BS, Becker M, Mundada P. The pterygopalatine fossa: imaging anatomy, communications, and pathology revisited. *Insights Imaging* 2016;7(4):589–99.

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