

Prognostic factors for locoregional and distant early failure in oral tongue squamous cell carcinoma within six months of treatment

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INTRODUCTION

- Among all oral cavity cancers, tongue has the highest mortality.¹
- These cancers can have a high risk of occult metastasis at early stage.
- There is no shield between the muscles of each half of tongue, and it can present with recurrence despite negative margins after surgery.²
- Early failures (i.e. failure within six months of complete treatment with a disease free period of at least 6 weeks), are not uncommon after treatment of tongue cancer.
- Early failure correlates with aggressive behaviour
- These patients need a more frequent follow up and aggressive treatment.
- This will guide us to be more vigilant of the such factors found at histopathology.
- We at our hospital, a tertiary care cancer institute catering a heterogeneous cancer population of north India, have studied the poor prognostic factors which lead to locoregional or distant early failure in tongue

MATERIAL AND METHODS

- Retrospective review of 118 patients
- Resectable oral tongue squamous cell carcinoma, (Surgical resection with adjuvant radiotherapy wherever indicated with or without concurrent chemotherapy (as and when indicated).
- Study period : January, 2018 to July, 2020.
- **Location:** Rajiv Gandhi Cancer Institute and research center, Rohini, Delhi, India
- **Follow up :** Clinically every three months. Imaging at 6 months and earlier if clinically indicated, for two years. Every 6 months thereafter till 5 years.
- **Declaration:** Study was approved by institutional review board

Inclusion criteria

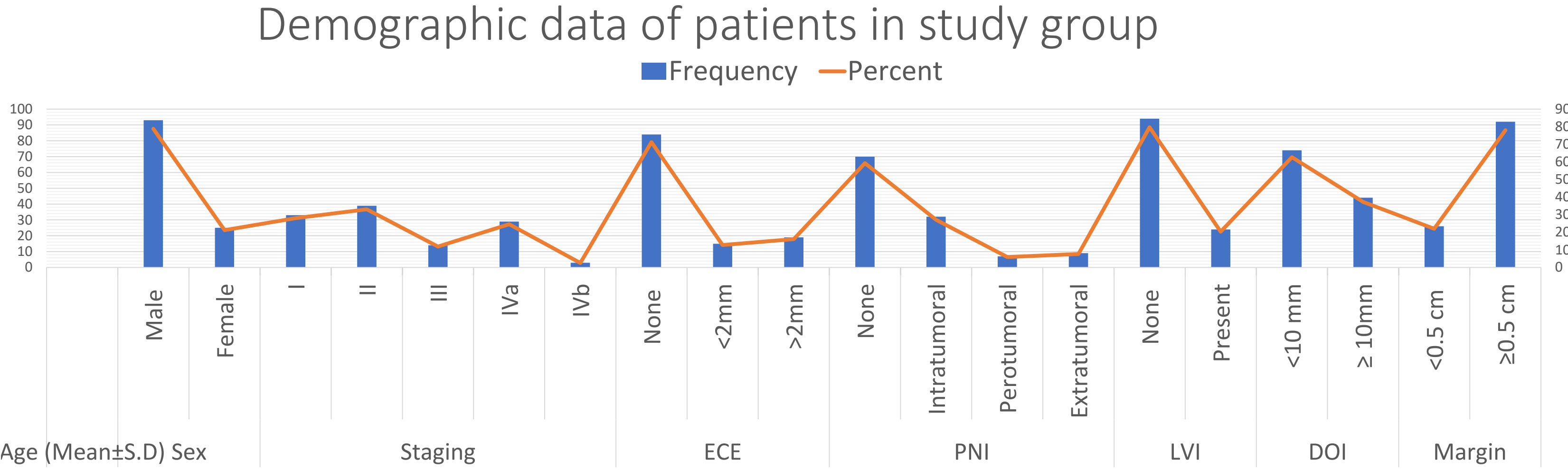
- Resectable Tumor with stages T1 to T4b and all N stages

Exclusion criteria

- Taken neoadjuvant chemotherapy or concurrent chemoradiation or recurrent carcinoma and patients with distant metastasis and non-squamous histology

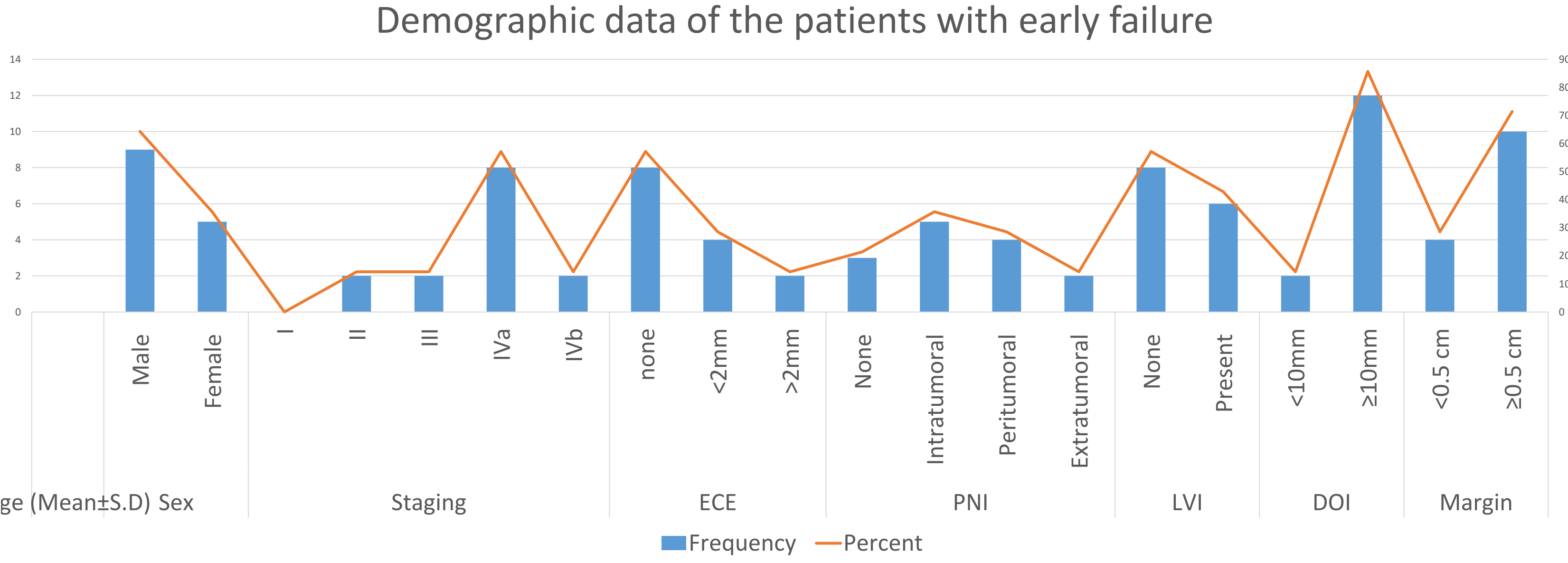
RESULTS

- Out of a total of 121 patients, 118 patients were finally included in the present study
- Mean age -- 49 years
- Median follow up -- 10 months.
- Recurrence free survival at 6 months -- 84.5 %.

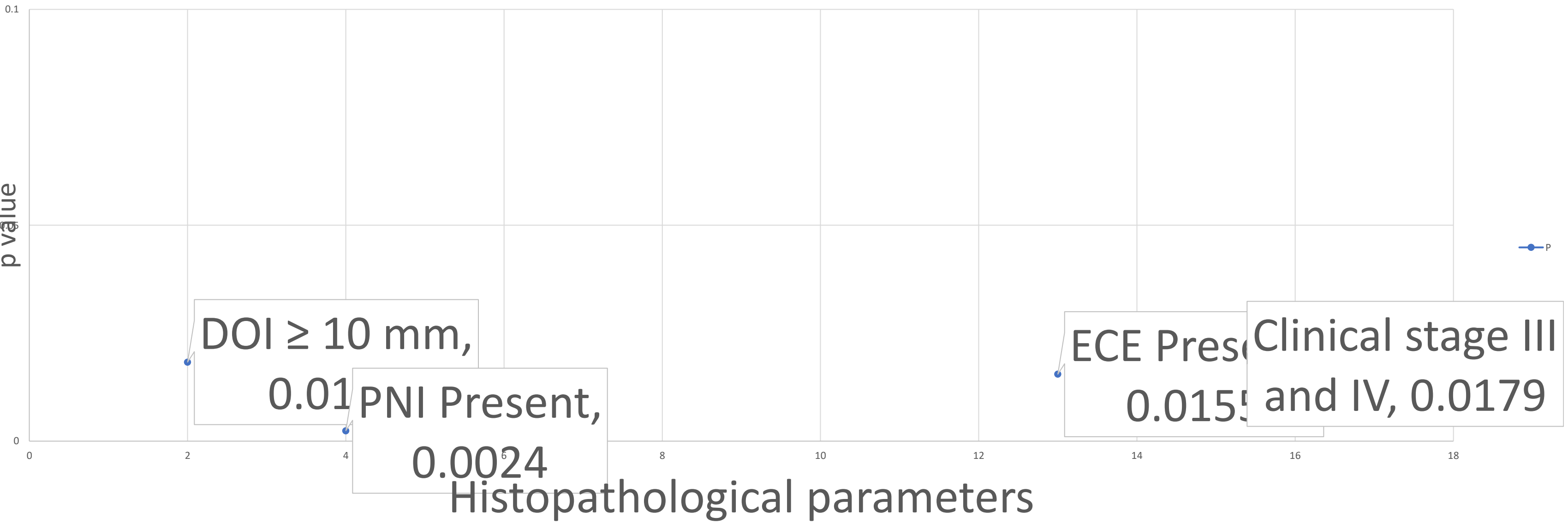


EARLY FAILURE DATA

- Fourteen patients out of 118 cases (11.8%) presented with loco-regional and/or distant metastatic disease recurrence within 6 months after completion of treatment.
- Out of these 7 patients had locoregional recurrence, 4 had distant metastasis and 3 had both.



Multivariate analysis of factors for early failure



DISCUSSION

- **Nair et al³**; 1534 patients; tongue and buccal mucosa cancer, **PNI(20.3%)** prognostic factor for recurrence
- **Brown et al⁴**; PNI (30%); mobile tongue and floor of mouth ; significantly related with recurrence. (71% with PNI developed regional recurrence as against 36% without PNI)
- Current study, PNI (40.7%). PNI (78.6 %) in early failure. PNI; prognostic factor; early failure (both locoregional and distant)
- Disease specific survival for tongue cancer decreases, from T2 to T3 as the prevalence of loco-regional recurrence greatly increases for DOI > 10 mm. ⁵
- In our study, DOI ; significantly associated early failure
- 2001, Myers et al⁶ ; 266 patients, for pN0, pN+/ECS– and, pN+/ECS+; overall recurrence rates; 19.8%, 34.2%, and 51.1%.
- Sharma et al⁷ in 2019; significant factor for recurrence in tongue cancer in 202 patients.
- Current study; ECS; 43% in recurrent cases, significant factor for recurrence.
- The subset analysis (microscopic vs macroscopic ECS) not done due to small number of cases

- Nair et al; all oral cavity subsites, advanced stage; prognostic factor; for overall survival.³
- Wunschel M et al; advanced stage; prognostic factor for decreased overall survival and increased loco-regional recurrence.
- In the present study, advance stage; significant factor for prediction of early failure in tongue carcinoma.

STRENGTHS OF THE STUDY

- There is scarcity of data on early failure in tongue
- Studied one subsite only (Having most aggressive behavior)
- Done in a particular region of north India which have large number of oral cavity cancers.
- Study period was small; retrospective bias may not have crept (A major drawback of most of the retrospective studies)

Limitations

- Less patients in recurrence group (very short period of time post treatment). May have less precise statistical analysis
- Our study was a single institution study (A large multi-institution study will be better)
- Inherent bias of any retrospective analysis

CONCLUSION

- DOI (>10 mm), PNI, ECE and advanced stage are significant prognostic factors for early failure in oral tongue SCC.
- In the Presence of above factors: do close follow up of patients to identify early failure and timely management.
- However, it is a small single institution study, this study has opened doors to look into the prognostic factors for early failure in tongue cancer.

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