

INTRODUCTION

Smoking and cancer

- Tobacco use is a known risk factor for the development of squamous cell carcinoma of the oral cavity
- Due to the increased awareness of the potential harms of smoking, both the prevalence of tobacco use as well as the incidence of oral cavity cancer have declined over the past several decades
- However, there remains a subset of the population with no history of smoking or tobacco use that continues to demonstrate an increase in the incidence of oral cavity cancer¹⁻⁴

OBJECTIVE

Characterize non-smokers with oral cancer

- To describe the clinical characteristics of non-smoking patients who have resectable oral cancer

METHODS

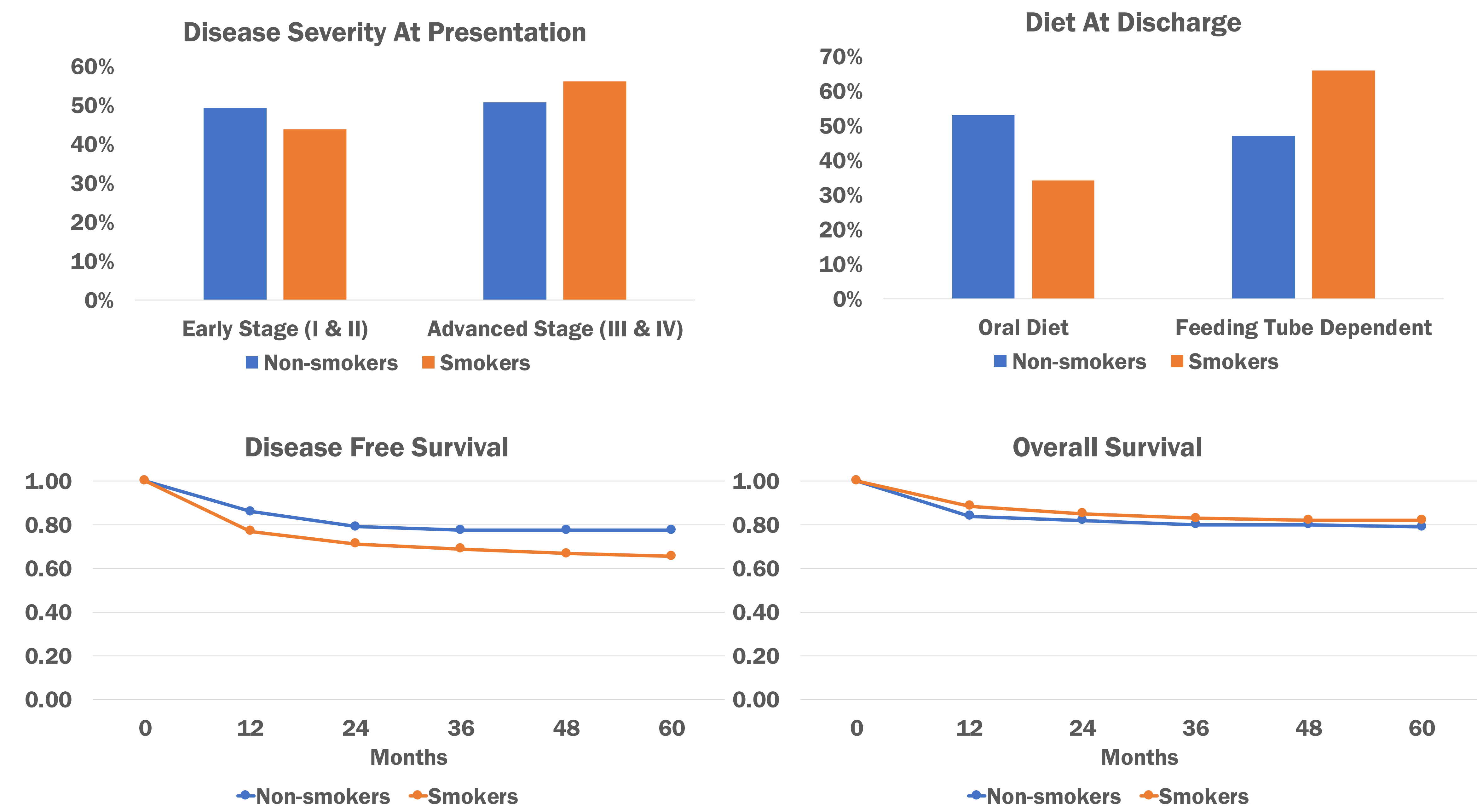
Retrospective cohort analysis

- 154 patients who underwent surgical resection of squamous cell carcinoma of the oral cavity between 2014 and 2019 at the University of Florida
- Non-smokers were defined as patients who have never smoked or have a remote history of smoking
- Exclusion criteria: previous history of head and neck cancer, evidence of a second primary, and evidence of distant metastasis at presentation

RESULTS

Smokers versus non-smokers

- Of the 154 patients, 71 were nonsmokers
- Mean follow up time of 26 months
- The mean age for non-smokers was 65.7 [SD, 11.8] years compared to 60.9 [SD, 9.6] years in smokers, (p = 0.007)
- There was no significant difference in recurrence rates (p = 0.157)
- The overall mortality rate for smokers was 18% and 21% for non-smokers
- Smokers were more likely to be feeding tube dependent at discharge (p = 0.022)



	Non-smokers		Smokers	
	n = 71		n = 83	
Sex				
Female	37	52.1%	16	19.3%
Male	34	47.9%	67	80.7%
Age				
< 40	1	1.4%	2	2.4%
40 - 50	7	9.9%	4	4.8%
50 - 60	9	12.7%	34	41.0%
60 - 70	31	43.7%	28	33.7%
> 70	23	32.4%	15	18.1%
Alcohol Abuse				
No	48	67.6%	31	37.3%
Yes	23	32.4%	52	62.7%

DISCUSSION

The non-smokers

- In this cohort, non-smokers were more likely to be older, female, and less likely to be discharged with a feeding tube
- The older age of this non-smoking population differs from results of previous studies, which demonstrate a rising incidence of oral cancer amongst young females without a history of tobacco use.¹⁻⁴
- The recurrence and survival rates were not significantly different between non-smokers and smokers in our study. Suggesting that, although mechanisms of carcinogenesis may be different, non-smokers have similar survival outcomes indicating equally aggressive pathology.
- Oral cavity cancer in the non-smoking population may be caused by a variety of factors including distinct genetic driver mutations, trauma from dental hardware, and changes in the microbiome, further investigation is needed to explore these mechanisms.^{4,5}

REFERENCES

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