

# CLINICOPATHOLOGICAL COMPARISON OF YOUNG VS OLD OSCC- A 12 YEAR COMPARATIVE STUDY



**INTRODUCTION :** Oral squamous cell carcinoma (OSCC) is the most common malignancy of the head and neck worldwide. It classically develops in older adults with chronic exposure to mucosal carcinogens found in tobacco, alcohol, and betel nut. It typically occurs in elderly men during 5th- 8th decades of life. Interestingly, younger patients have also experienced a worldwide increase in incidence, outpacing their older counterparts.

**AIM:** To study the clinico-pathological details about the demography, site predilection, tobacco-related habits / risk factors in OSCC patients (young vs old) who visited our institution during a 12-year period.

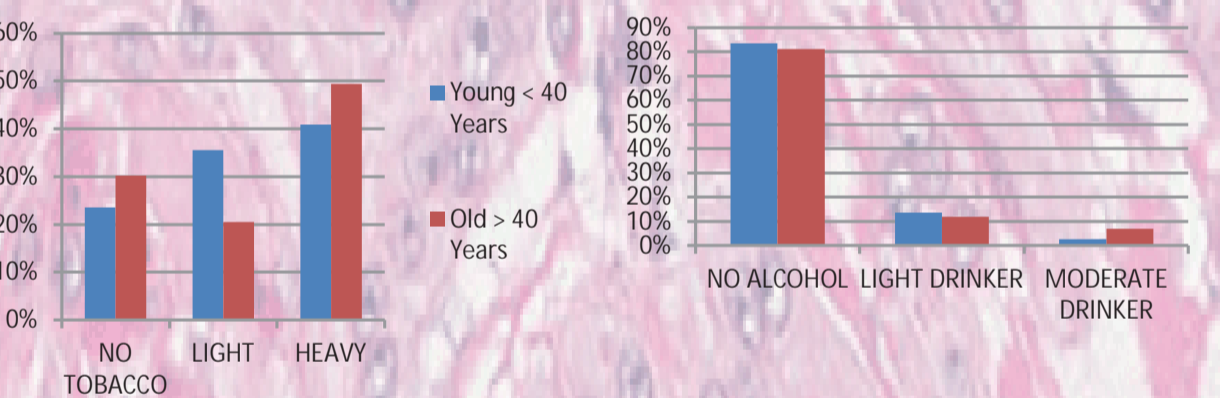
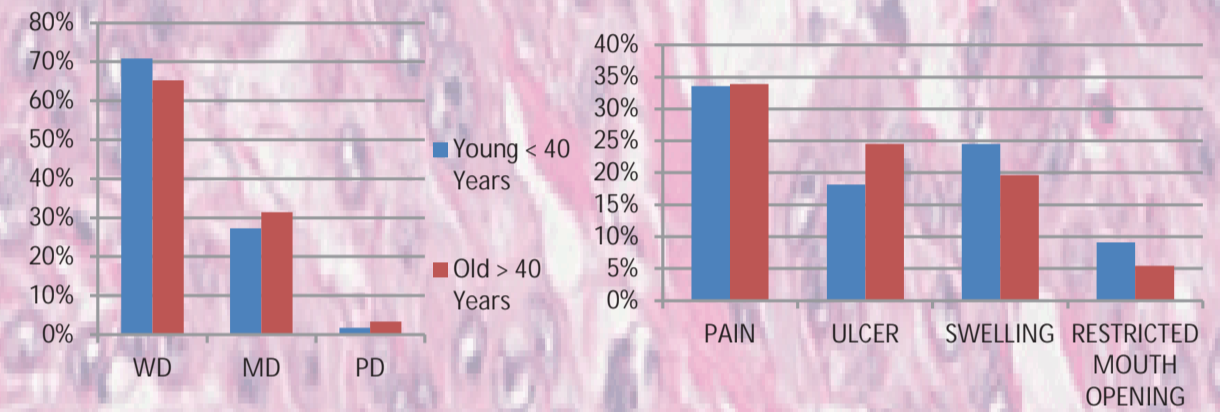
The following criteria for evaluation of habits was followed<sup>5</sup>  
**Tobacco:** Light and Heavy Tobacco- <5 and >5 cigarettes per day

**Alcohol:** Light Drinker 1-3 drinks/week;  
 Moderate Drinker Male: 4-14 and Female: 4-7 drinks/ week  
 Heavy Drinker Male: >14 and Female >7 drinks per week

**MATERIALS AND METHOD:** The case history files were retrieved from departmental archives from 2010 to 2022. Out of 5350 biopsies diagnosed, 594 OSCC cases were selected. The cases were divided according to their age, and their clinico-pathological findings were recorded. Young patients were defined as less than 40 years of age while old were more than 40 years.<sup>1,2</sup>

Malignancies of salivary glands, naso-pharynx, hypo-pharynx and metastatic tumours were excluded.

RESULTS	Young (%)	Old (%)
Number	110 (18.51%)	484 (81.48%)
Male	79.1 %	76.9 %
Female	20.9 %	23.1 %
Ratio (M:F)	3.7 :1	3.3 :1
Buccal Mucosa	37.3 %	24.8 %
Palate	8.2 %	6.8 %
Max Alv Ridge	6.4 %	7.5 %
Mnd Alv Ridge	25.5 %	28.5 %
Tongue	8.2 %	10.4 %
Floor Of Mouth	3.6 %	10.3 %
Lip	1.8 %	1.7 %
Retromolar region	8.2 %	7.5 %



Nr-No Relation; Pr- Positive Relation; Alv: Alveolus; Max: Maxilla; Mnd: Mandible  
 WD- Well Differentiated; MD-Moderately Differentiated; PD- Poorly Differentiated;  
 Tng- Tongue; BM- Buccal Mucosa; MA- Mandibular Alveolus

## DISCUSSION

	Wadad /2021	Sun Q/2015	Abdulla/2018	Tandon/2018	Our Study/2022					
Study with age criteria	Young (<40)	Old (>40)	Young (<40)	Old (>40)	Young (<40)	Old (>40)				
Incidence	---	---	7.2%	92.	20.4%	76.6%	16.33%	83.66%	18.51%	81.48%
Gender	Male	---	Male	Male	Male	Male	Male	Male	Male	Male
Histopathological Grade	MD	---	WD	WD	MD	MD	WD	WD	WD	WD
Tobacco & Alcohol	Nr	---	Pr	Pr	Nr	Pr	Nr	Pr	Pr	Pr
Most Common Site	Tng	---	Tng	Tng	Tng	BM	BM	BM	BM	MA

**CONCLUSION:** Clinical and epidemiological profile of young OSCC shows differences and similarities with older group. **Young patients** are associated with **male gender, buccal mucosa as most common site** and pain and swelling symptomatology. Furthermore, consumption of alcohol and tobacco are significantly associated. **Large-scale screening** in a cohort of multiple geographical locations is warranted with standard age criterion.

**REFERENCES:** 1.Wadad S et al. "Clinicopathologic Characteristics of Young Patients with Oral Squamous Cell Carcinoma." *Head and neck pathology* vol. 15,4 (2021): 1099-1108 2.Sun, Qiang et al. "A comparison of oral squamous cell carcinoma between young and old patients in a single medical center in China." *International journal of clinical and experimental medicine* vol. 8,8 12418-23. 15 Aug. 2015; 3.Abdulla R et al Clinicopathological analysis of oral squamous cell carcinoma among the younger age group in coastal Karnataka, India: A retrospective study. *J Oral Maxillofac Pathol* 2018;22:180-7; 4. Tandon A et al Demographic and clinicopathological profile of oral squamous cell carcinoma patients of North India: A retrospective institutional study. *SRM J Res Dent Sci* 2018;9:114-8 5. Jiang N, Gonzalez M, Ling PM, Glantz SA. Relationship of Smokefree Laws and Alcohol Use with Light and Intermittent Smoking and Quit Attempts among US Adults and Alcohol Users. *PLoS One*. 2015