JCDS JOURNAL of CONTEMPORARY DENTAL SCIENCES OPEN ACCESS

Original Article

# Descriptive Analysis of Oral Cancer Cases in a Tertiary Hospital in Bangladesh

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**ARTICLE INFO.**

Received: 2 October, 2025
Accepted: 12 December, 2025

**Volume: Vol-14, Issue-1, January 2026**
DOI: https://doi.org/10.3329/jcds.v14i1.86064



**Publisher**: Sapporo Dental College, Dhaka, Bangladesh
**Web**: www.sdch.edu.bd
**E-mail**: jcds.sdc@gmail.com

**Scan QR code to access your article on JCDS BanglaJOL index.**

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## ABSTRACT

**Background:** Oral cancer is a significant public health burden in Bangladesh, with limited local evidence on patient profiles, risk factors, and clinical presentation. **Methods:** A descriptive cross-sectional study was conducted from October 2024 to February 2025 at a Dhaka hospital, including 148 clinically diagnosed oral cancer patients via purposive sampling. Data were collected through structured interviews and standardized oral examinations. Analysis employed descriptive statistics and Chi-square tests in SPSS. **Results:** The mean age was 58.26 years with male predominance [62%]. High-risk behaviors were prevalent: 84.5% used tobacco/betel quid, 77.7% had low fruit/vegetable intake, and 8.1% consumed alcohol. Advanced clinical features included rapid lesion growth [69.6%], fixation [87.8%], palpable lymph nodes [64.9%], everted edges [56.8%], and whitish mucosa [54.1%]. Age was significantly associated with lesion growth speed [p<0.001], but no significant links were found for tobacco use and lesion edge, gender and lesion edge, or occupation and symptom duration. **Conclusion:** Findings highlight a high burden of modifiable risk factors and late-stage diagnosis, emphasizing the need for targeted prevention, cessation programs, and opportunistic screening for earlier detection.

**KEY WORDS**: *oral cancer, socio-demographic factors, clinical characteristics, lesion growth*

## INTRODUCTION

Oral cancer is among the diseases with the highest morbidity and mortality worldwide. Oral cancers encompass malignancies of the lips and oral cavity, including the tongue, gums, floor of the mouth, palate, and other regions of the mouth [1]. According to the World Health Organization [WHO], Oral cancer ranks as the 13th most prevalent cancer globally, with 377,713 new cases and 177,757 fatalities reported in 2020. Oral cancer continues to be a significant global health issue, especially in low- and middle-income nations. It is among the most prevalent cancers impacting populations in South Asia. The incidence of oral cancer in Bangladesh has been progressively rising over the past decades. Tobacco smoking and alcohol consumption are primary contributors to oral cancer in many countries; however, in South and South-East Asia, as well as the Western Pacific islands, smokeless tobacco and areca nut products are the leading causes [1]. Several epidemiologic and experimental investigations have demonstrated the link between smoking and the development of oral cancer. Heavy alcohol consumption increases the risk of oral cancer, and studies show that smoking combined with heavy drinking significantly aggravates this risk[2].

Besides that, its prevalence differs by region and displays unique characteristics based on patient age, gender, ethnicity, affected area, and treatment modalities [3]. Oral cancer exhibits a higher prevalence in males and older populations, demonstrates increased mortality rates in men relative to women, and shows significant variation based on socio-economic factors [4]. The association between socio-demographic disparities and oral cancer remains insufficiently examined within the prevailing medical research and prevention framework. As the consumption of tobacco and alcohol plays a crucial role in influencing clinical risk factors, literature frequently neglects to address the socio-economic disparities that underpin these behaviors. Numerous studies indicate that individuals from socio-economically deprived backgrounds face an increased risk of developing oral cancer, suggesting that area-based deprivation and restricted access to preventive care may significantly affect disease patterns [5].

The growing prevalence of oral cancer across South Asia highlights the need for a better understanding of the disease's clinical presentation and the socio-demographic backgrounds of affected individuals. Exploring these patterns can help inform more effective screening, referral, and treatment strategies tailored to local contexts. This descriptive study, based on cases documented by early-career dental professionals in a tertiary care center in Bangladesh, aims to explore the clinical features and socio-demographic characteristics of patients diagnosed with oral cancer. It further examines behavioral risk factors and observable lesion patterns to provide a detailed local profile of disease presentation. The findings aim to contribute to the generation of localized data and inform future context-specific research and planning efforts in oral cancer control and prevention.

## MATERIAL AND METHODS

This descriptive cross-sectional study was conducted at the Outpatient Department [OPD] of Shaheed Suhrawardy Medical College Hospital [ShSMC], Dhaka, over a five-month period from October 2024 to February 2025. A total of 148 adult patients [aged ≥18 years] clinically diagnosed with oral cancer were selected through purposive sampling. Patients with incomplete responses or unconfirmed diagnoses were excluded to ensure data accuracy. Ethical approval was obtained following the Declaration of Helsinki, and informed verbal consent was secured after clearly explaining the study's objectives, procedures, and potential risks.

Data were collected using a structured questionnaire that captured socio-demographic characteristics [age, sex, marital status, occupation], behavioral risk factors [tobacco/betel quid use, alcohol consumption, low fruit and vegetable intake], and clinical features of the lesion. The questionnaire was administered through face-to-face interviews and complemented by standardized oral examinations. These examinations were performed by early-career dental practitioners [1–2 years' experience] trained and supervised by senior dental faculty, ensuring consistency and diagnostic accuracy. Clinical assessments included lesion site and duration, mucosal appearance, edge characteristics, growth rate, discharge, fixation to adjacent tissues, and lymph node involvement, conducted under artificial illumination using a mouth mirror and probe.

Data analysis was carried out using SPSS version 27. Descriptive statistics [frequencies and percentages] were used to summarize participant characteristics and clinical findings. Bivariate analyses were conducted using Chi-square [$\chi^2$] tests to explore associations between categorical variables, with a significance level set at $p < 0.05$.

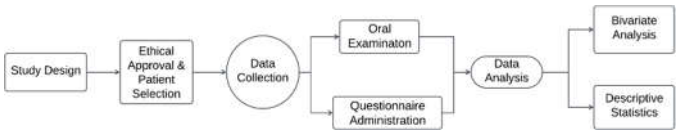


Figure 1: Flow diagram illustrating the methodological framework of this study

## RESULTS

A total of 148 patients clinically diagnosed with oral cancer were enrolled in the study. The mean age of the participants was 58.26 ± 11.24 years. Males comprised 62% [n = 92] of the sample, while females accounted for 38% [n = 56]. Age-wise, older adults [51–70 years] represented the largest group [38%], followed by middle-aged adults [36%], young adults [18%], and elderly individuals [8%]. Occupationally, participants were categorized into six groups, with Category 1 being the most prevalent [70%], particularly among middle-aged individuals **[Table 1]**.

**Table 1: Socio-Demographic Characteristics of Patients [N = 148]**

| | | Age Category | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Young Adults | | Middle-aged | | Older Adults | | Elderly | |
| | | Count | Column N % | Count | Column N % | Count | Column N % | Count | Column N % |
| Gender of Patient [Male=1, Female=2] | Male | 17 | 63.0 | 12 | 24.0 | 23 | 50.0 | 13 | 52.0 |
| | Female | 10 | 37.0 | 38 | 76.0 | 23 | 50.0 | 12 | 48.0 |
| Grouped Occupation | 1 | 3 | 11.1 | 35 | 70.0 | 23 | 50.0 | 12 | 48.0 |
| | 2 | 0 | 0.0 | 3 | 6.0 | 12 | 26.1 | 7 | 28.0 |
| | 3 | 4 | 14.8 | 0 | 0.0 | 5 | 10.9 | 2 | 8.0 |
| | 4 | 5 | 18.5 | 12 | 24.0 | 3 | 6.5 | 3 | 12.0 |
| | 5 | 3 | 11.1 | 0 | 0.0 | 3 | 6.5 | 1 | 4.0 |
| | 6 | 12 | 44.4 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |

### Assessment of Behavioral and Dietary Risk Factors

Among the study participants, 77.7% [n = 115] reported a low intake of fruits and vegetables, indicating inadequate dietary practices associated with elevated oral cancer risk. Tobacco or betel quid use was prevalent in 84.5% [n = 125] of the patients, highlighting a dominant behavioral risk factor within the cohort. In contrast, alcohol consumption was relatively uncommon, reported by only 8.1% of participants [n = 12] **[Table 2]**.

**Table 2: Behavioural and Dietary Risk Factors**

| | | Count | Column N % |
|---|---|---|---|
| Tobacco or Betel Use [Yes=1, No=0] | No | 23 | 15.5 |
| | Yes | 125 | 84.5 |
| Alcohol Use [Yes=1, No=0] | No | 136 | 91.9 |
| | Yes | 12 | 8.1 |
| Low Fruit/Vegetable Intake [Yes=1, No=0] | 0 | 33 | 22.3 |
| | 1 | 115 | 77.7 |

**Table 3: Clinical Presentation Characteristics**

| | | Count | Column N % |
|---|---|---|---|
| Growth Speed [Rapid=2, Slow=1] | Slow | 45 | 30.4 |
| | Rapid | 103 | 69.6 |
| Lesion Duration [Short=1, Long=2] | Short | 110 | 74.3 |
| | Long | 38 | 25.7 |
| Lesion Edge [1=Everted, 2=Rolled, 3=Punched, 4=Other] | 1 | 84 | 56.8 |
| | 2 | 24 | 16.2 |
| | 3 | 38 | 25.7 |
| | 4 | 2 | 1.4 |
| Mucosa Type [Whitish=1, Reddish=2, Yellowish=3] | 1 | 80 | 54.1 |
| | 2 | 66 | 44.6 |
| | 3 | 2 | 1.4 |
| Fixation [Yes=1, No=0] | 0 | 18 | 12.2 |
| | 1 | 130 | 87.8 |
| Palpable Lymph Node [Present=1, Absent=0] | 0 | 52 | 35.1 |
| | 1 | 96 | 64.9 |
| Palpation Type [Hard, Firm, Soft] | 1 | 86 | 58.1 |
| | 2 | 43 | 29.1 |
| | 3 | 19 | 12.8 |
| Discharge Type [Serosanguinous, Serous, Bloody, Other] | 1 | 77 | 52.0 |
| | 2 | 19 | 12.8 |
| | 3 | 42 | 28.4 |
| | 4 | 10 | 6.8 |

**Clinical Findings Assessment**

The behavior of lesions is a crucial aspect of disease progression. In this study, rapid growth was observed in 69.6% [n = 103] cases, while 30.4% [n = 45] exhibited slow growth. The majority of lesions were of short duration [74.3%, n = 110]. The most frequently observed lesion edge type was everted [56.8%, n = 84], followed by punched [25.7%, n = 38] and rolled [16.2%, n = 24] edges. Mucosal appearances were predominantly whitish [54.1%, n=80], followed by reddish [44.6%, n=66] and yellowish [1.4%, n=2] types. Fixation of lesions to underlying structures was noted in 12.2% [n = 18] of patients. Palpable lymph nodes were present in 35.1% [n=52] of cases. A hard consistency was found in 58.1% [n = 86] of cases. The most common discharge observed was serosanguinous [52%, n=77], followed by bloody [28.4%, n=42] and serous [6.8%, n=10] types **[Table 3]**.

**Assessment of Age Category and Lesion Growth Speed**

A significant association was observed between age category and the growth speed of lesions [$\chi^2 = 29.436$, df = 3, $p < 0.001$]. Elderly patients showed the highest proportion of rapidly growing lesions [96.0%], followed by older adults [82.6%] and middle-aged individuals [64.0%]. In contrast, young adults exhibited a higher percentage of slow-growing lesions [66.7%]. This pattern suggests a stronger tendency for aggressive lesion progression among older age groups **[Table 4]**.

**Assessment of Tobacco or Betel Use and Lesion Edge**

The relationship between tobacco or betel use and lesion edge types was not statistically significant [$\chi^2 = 4.274$, df = 3, $p = 0.233$]. However, descriptive findings show that patients who used tobacco or betel quid had a higher proportion of everted [57.6%] and punched [27.2%] lesion edges, compared to non-users, who exhibited more rolled [25%] and other edge types [10.5%] **[Table 5]**.

**Table 4: Crosstabulation of Age Category and Lesion Growth Speed Among Oral Cancer Patients**

| | | | Growth Speed [Rapid=2, Slow=1] | | Total |
|---|---|---|---|---|---|
| | | | Slow | Rapid | |
| Age Category | Young Adults | Count | $18_a$ | $9_b$ | 27 |
| | | Expected Count | 8.2 | 18.8 | 27.0 |
| | | % Within Age Category | 66.7 | 33.3 | 100.0 |
| | | % Within Growth Speed [Rapid=2, Slow=1] | 40.0 | 8.7 | 18.2 |
| | Middle-aged | Count | $18_a$ | $32_a$ | 50 |
| | | Expected Count | 15.2 | 34.8 | 50.0 |
| | | % Within Age Category | 36.0 | 64.0 | 100.0 |
| | | % Within Growth Speed [Rapid=2, Slow=1] | 40.0 | 31.1 | 33.8 |
| | Older Adults | Count | $8_a$ | $38_b$ | 46 |
| | | Expected Count | 14.0 | 32.0 | 46.0 |
| | | % Within Age Category | 17.4 | 82.6 | 100.0 |
| | | % Within Growth Speed [Rapid=2, Slow=1] | 17.8 | 36.9 | 31.1 |
| | Elderly | Count | $1_a$ | $24_b$ | 25 |
| | | Expected Count | 7.6 | 17.4 | 25.0 |
| | | % Within Age Category | 4.0 | 96.0 | 100.0 |
| | | % Within Growth Speed [Rapid=2, Slow=1] | 2.2 | 23.3 | 16.9 |
| Total | | Count | 45 | 103 | 148 |
| | | Expected Count | 45.0 | 103.0 | 148.0 |
| | | % Within Age Category | 30.4 | 69.6 | 100.0 |
| | | % Within Growth Speed [Rapid=2, Slow=1] | 100.0 | 100.0 | 100.0 |

Each subscript letter denotes a subset of Growth Speed [Rapid=2, Slow=1] categories whose column proportions do not differ significantly from each other at the .05 level. Chi-square test: $\chi^2 = 29.436$, df = 3, $p < 0.001$

**Table 5: Tobacco or Betel Use [Yes=1, No=0] × Lesion Edge [1=Everted, 2=Rolled, 3=Punched, 4=Other] Crosstabulation**

| | | | Lesion Edge [1=Everted, 2=Rolled, 3=Punched, 4=Other] | | | | Total |
|---|---|---|---|---|---|---|---|
| | | | 1 | 2 | 3 | 4 | |
| Tobacco or Betel Use [Yes=1, No=0] | No | Count | $12_a$ | $6_a$ | $4_a$ | $1_a$ | 23 |
| | | Expected Count | 13.1 | 3.7 | 5.9 | .3 | 23.0 |
| | | % within Tobacco or Betel Use [Yes=1, No=0] | 52.2 | 26.1 | 17.4 | 4.3 | 100.0 |
| | | % within Lesion Edge [1=Everted, 2=Rolled, 3=Punched, 4=Other] | 14.3 | 25.0 | 10.5 | 50.0 | 15.5 |
| | Yes | Count | $72_a$ | $18_a$ | $34_a$ | $1_a$ | 125 |
| | | Expected Count | 70.9 | 20.3 | 32.1 | 1.7 | 125.0 |
| | | % within Tobacco or Betel Use [Yes=1, No=0] | 57.6 | 14.4 | 27.2 | 0.8 | 100.0 |
| | | % within Lesion Edge [1=Everted, 2=Rolled, 3=Punched, 4=Other] | 85.7 | 75.0 | 89.5 | 50.0 | 84.5 |
| Total | | Count | 84 | 24 | 38 | 2 | 148 |
| | | Expected Count | 84.0 | 24.0 | 38.0 | 2.0 | 148.0 |
| | | % within Tobacco or Betel Use [Yes=1, No=0] | 56.8 | 16.2 | 25.7 | 1.4 | 100.0 |
| | | % within Lesion Edge [1=Everted, 2=Rolled, 3=Punched, 4=Other] | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Each subscript letter denotes a subset of Lesion Edge [1=Everted, 2=Rolled, 3=Punched, 4=Other] categories whose column proportions do not differ significantly from each other at the .05 level.Chi-square test: $\chi^2 = 4.274$, df = 3, $p = 0.233$.

**Assessment of Alcohol Use and Palpable Lymph Node**

No significant association was found between alcohol use and the presence of palpable lymph nodes [$\chi^2$ = 0.244, df = 1, p = 0.621]. However, the descriptive data indicated that patients who consumed alcohol had a slightly higher prevalence of palpable lymph nodes [41.7%] compared to non-users [34.6%]. It is crucial to note that due to the small sample size among alcohol users [n = 12] **[Table 6]**.

**Table 6: Alcohol Use [Yes=1, No=0] * Palpable Lymph Node [Present=1, Absent=0] Crosstabulation**

| | | | Palpable Lymph Node [Present=1, Absent=0] | | Total |
|---|---|---|---|---|---|
| | | | 0 | 1 | |
| Alcohol Use [Yes=1, No=0] | No | Count | $47_a$ | $89_a$ | 136 |
| | | Expected Count | 47.8 | 88.2 | 136.0 |
| | | % within Alcohol Use [Yes=1, No=0] | 34.6 | 65.4 | 100.0 |
| | | % within Palpable Lymph Node [Present=1, Absent=0] | 90.4 | 92.7 | 91.9 |
| | Yes | Count | $5_a$ | $7_a$ | 12 |
| | | Expected Count | 4.2 | 7.8 | 12.0 |
| | | % within Alcohol Use [Yes=1, No=0] | 41.7 | 58.3 | 100.0 |
| | | % within Palpable Lymph Node [Present=1, Absent=0] | 9.6 | 7.3 | 8.1 |
| Total | | Count | 52 | 96 | 148 |
| | | Expected Count | 52.0 | 96.0 | 148.0 |
| | | % within Alcohol Use [Yes=1, No=0] | 35.1 | 64.9 | 100.0 |
| | | % within Palpable Lymph Node [Present=1, Absent=0] | 100.0 | 100.0 | 100.0 |

Each subscript letter denotes a subset of Palpable Lymph Node [Present=1, Absent=0] categories whose column proportions do not differ significantly from each other at the .05 level. Chi-square test: $\chi^2$ = 0.244, df = 1, p = 0.621

**Table 7 : Grouped Occupation * Lesion Duration [Short=1, Long=2] Crosstabulation**

| | | | Lesion Duration [Short=1, Long=2] | | Total |
|---|---|---|---|---|---|
| | | | Short | Long | |
| Grouped Occupation | 1 | Count | $50_a$ | $23_a$ | 73 |
| | | Expected Count | 54.3 | 18.7 | 73.0 |
| | | % within Grouped Occupation | 68.5 | 31.5 | 100.0 |
| | | % within Lesion Duration [Short=1, Long=2] | 45.5 | 60.5 | 49.3 |
| | 2 | Count | $19_a$ | $3_a$ | 22 |
| | | Expected Count | 16.4 | 5.6 | 22.0 |
| | | % within Grouped Occupation | 86.4 | 13.6 | 100.0 |
| | | % within Lesion Duration [Short=1, Long=2] | 17.3 | 7.9 | 14.9 |
| | 3 | Count | $9_a$ | $2_a$ | 11 |
| | | Expected Count | 8.2 | 2.8 | 11.0 |
| | | % within Grouped Occupation | 81.8 | 18.2 | 100.0 |
| | | % within Lesion Duration [Short=1, Long=2] | 8.2 | 5.3 | 7.4 |
| | 4 | Count | $18_a$ | $5_a$ | 23 |
| | | Expected Count | 17.1 | 5.9 | 23.0 |
| | | % within Grouped Occupation | 78.3 | 21.7 | 100.0 |
| | | % within Lesion Duration [Short=1, Long=2] | 16.4 | 13.2 | 15.5 |
| | 5 | Count | $5_a$ | $2_a$ | 7 |
| | | Expected Count | 5.2 | 1.8 | 7.0 |
| | | % within Grouped Occupation | 71.4 | 28.6 | 100.0 |
| | | % within Lesion Duration [Short=1, Long=2] | 4.5 | 5.3 | 4.7 |
| | 6 | Count | $9_a$ | $3_a$ | 12 |
| | | Expected Count | 8.9 | 3.1 | 12.0 |
| | | % within Grouped Occupation | 75.0 | 25.0 | 100.0 |
| | | % within Lesion Duration [Short=1, Long=2] | 8.2 | 7.9 | 8.1 |
| Total | | Count | 110 | 38 | 148 |
| | | Expected Count | 110.0 | 38.0 | 148.0 |
| | | % within Grouped Occupation | 74.3 | 25.7 | 100.0 |
| | | % within Lesion Duration [Short=1, Long=2] | 100.0 | 100.0 | 100.0 |

Grouped Occupation was recoded as: 1 = Housewife, 2 = Farmer, 3 = Businessman, 4 = Laborer [including Worker, Rickshaw puller, Security Officer, Army Soldier], 5 = Service Holder [including Service Holder, Banker, Teacher], and 6 = Student. Each subscript letter denotes a subset of Lesion Duration [Short=1, Long=2] categories whose column proportions do not differ significantly from each other at the .05 level. Chi-square test: $\chi^2$ = 3.516, df = 5, p = 0.621

**Assessment of Gender and Lesion Edge**

The analysis showed no significant relationship between gender and the type of lesion edge [$\chi^2$ = 0.978, df = 3, p = 0.807]. Both male and female patients most frequently exhibited everted lesion edges [52.3% and 60.2%, respectively]. Rolled and punched edges were also similarly distributed across genders. These findings suggest that there

is no gender-specific patterns in lesion morphology.

**Assessment of Grouped Occupation and Lesion Duration**

There was no statistically significant association between grouped occupation and lesion duration [$\chi^2$ = 3.516, df = 5, p = 0.621]. However, a descriptive trend indicated that individuals in occupation groups 2 and 3 had a higher proportion of short-duration lesions [86.4% and 81.8%, respectively], compared to other occupational groups. Notably, group 1, which represented the most significant proportion of patients [49.3%], exhibited a more balanced distribution between short [68.5%] and long [31.5%] duration lesions, suggesting the need for further investigation into this group **[Table 7]**.

## DISCUSSION

The present study revealed a higher prevalence of oral cancer among males [62%] and older adults, with a mean age of 58.26 years. Similar results were found in a hospital-based study by Priebe et al. [2010] in Vietnam, which reported that 68 percent of OSCC patients were male, with a mean age of 55.8 years for men and 63.6 years for women, indicating a similar regional age-gender distribution [6]. These findings are consistent with global epidemiological patterns, where prolonged exposure to behavioral and environmental risk factors accumulates over time. The gender disparity may be linked to higher rates of tobacco and betel quid consumption among men in South Asian contexts, reflecting gender-specific lifestyle behaviors and cultural norms. Furthermore, nearly half of the participants were homemakers [49.3%], suggesting that socio-occupational background may influence disease awareness, health-seeking behavior, or exposure to second-hand risk factors within household environments.

Risk behaviors were highly prevalent in the sample. A striking 84.5% reported tobacco or betel quid use, underscoring its dominant role in oral carcinogenesis in the region. Additionally, 77.7% of patients reported low fruit and vegetable intake, a dietary deficiency known to reduce antioxidant protection and increase vulnerability to mucosal damage. Similar findings were reported in India, where tobacco chewing was found to significantly increase the risk of oral cancer, with a risk ratio of 9.2 for former users and 5.5 for current users [7]. Although alcohol use was relatively low [8.1%], its carcinogenic potential in conjunction with tobacco is well documented. The lower prevalence may reflect underreporting due to stigma or cultural disapproval, which is common in conservative settings and hospital-based self-reporting.

Clinically, the majority of cases were characterized by rapidly growing lesions [69.6%] and short lesion duration [74.3%], both indicators of possible late-stage detection. Everted lesion edges were most common [56.8%], typically associated with invasive and aggressive tumor growth. Mucosal presentations were primarily whitish [54.1%] and reddish [44.6%], both considered premalignant or malignant signs in oral pathology. Additional clinical indicators such as lesion fixation [87.8%] and the presence of palpable lymph nodes [64.9%] further suggest that many patients presented with advanced disease, reducing the likelihood of a favorable prognosis. Similar findings are reported in a study by Peacock et al. [2008], which identified late-stage detection patterns: the mean time from patients' first sign or symptom to treatment was 205.9 days, and the most extended delay was from symptom onset to doctor visit [104.7 days] [8]. These findings highlight a critical delay in detection and diagnosis, potentially due to limited access to care or lack of symptom awareness.

Analytical findings provided more profound insights into demographic and clinical associations. A statistically significant relationship was found between age group and lesion growth speed, with elderly patients most likely to exhibit rapidly growing lesions. Similar results were reported by Paul M. et al. [2018], who found that the majority of patients with OSCC were in the older age group and that a significantly higher proportion of these lesions showed rapid progression and invasive behavior [9]. This supports the need for early screening efforts targeted at aging populations. While the association between tobacco or betel quid use and lesion edge morphology was not statistically significant, users showed higher proportions of aggressive lesion types, such as everted and punched edges. This trend, though not conclusive, may suggest an underlying pathological effect from chronic exposure that warrants further investigation.

No significant differences in lesion morphology were observed between males and females, indicating that both genders experience similar clinical presentations. However, occupation-based patterns revealed potentially meaningful disparities. Farmers and businesspeople showed high proportions of short-duration lesions [86.4% and 81.8%, respectively], which may reflect late presentation due to limited awareness, financial constraints, or occupational time constraints. Similar findings are reported in a community-based screening study by Nunn et al. [2009], in which individuals with no formal education were significantly more likely to be referred for further evaluation [OR: 6.94, 95% CI: 1.66–28.98] [10]. This suggests that educational background, rather than occupational status alone, may play a more critical role in shaping health-seeking behavior and clinical presentation. Homemakers exhibited a more balanced lesion duration pattern, likely due to differences in symptom perception or access to household-level health knowledge. Overall, the findings highlight the combined influence of behavioral, social, and clinical factors on oral cancer presentation. Strengthening early detection and awareness among high-risk and low-education groups may help reduce late diagnosis and improve outcomes.

## CONCLUSION

This descriptive study provides valuable insight into the socio-demographic and clinical profiles of patients diagnosed with oral cancer in a tertiary care setting in Bangladesh. The findings revealed a predominance of cases among males and older adults, with a significant proportion engaging in high-risk behaviors such as tobacco or betel quid use and consuming a diet low in fruits and vegetables. Clinically, most patients presented with rapidly growing lesions of short duration. While some cross-tabulated associations, such as age and lesion growth speed, were statistically significant, others revealed important descriptive trends worth further exploration. These results underscore the need for robust public health strategies that focus on prevention, early screening, and education, particularly among high-risk groups defined by age, gender, occupation, and behavioral patterns. A more comprehensive understanding of these factors can help guide targeted interventions and inform future research in oral oncology in low-resource settings.

**CONFLICT OF INTEREST:** The authors declare no conflict of interest.
**FUNDING:** This research received no external funding.
**DATA AVAILABILITY STATEMENT:** The data presented in this study are available on reasonable request from the corresponding author

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**HOW TO CITE:**

Parvin S, Lucky JS, Shampa SA, Alim S, Fatema SB, Hossain MS. Descriptive Analysis of Oral Cancer Cases in a Tertiary Hospital in Bangladesh. J. Contemp. Dent. Sci. [Internet]. [cited 2026 Feb. 9];14(1):3-8. Available from: https://www.banglajol.info/index.php/JCDS/article/view/86064

JCDS -ISSN: 2305-9664