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Original Research Paper

Otorhinolaryngology

A STUDY OF TOBACCO CONSUMPTION PATTERNS IN PATIENTS WITH LARYNGEAL AND HYPOPHARYNGEAL CARCINOMA

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ABSTRACT

Background: Carcinoma of the larynx and hypopharynx constitutes a major proportion of upper aerodigestive tract malignancies and continues to be a significant public health problem, especially in developing countries. Tobacco consumption in both smoked and smokeless forms is a well-established etiological factor. However, a notable number of patients develop these malignancies without any history of tobacco exposure, suggesting the role of additional risk factors. **Aim:** To study the patterns of tobacco consumption in patients with laryngeal and hypopharyngeal carcinoma, to determine the proportion of non-tobacco consumers, and to correlate tobacco consumption patterns with the site of origin and histopathological grade of the tumor. **Materials and Methods:**This retrospective observational study was conducted on 75 patients diagnosed with carcinoma of the larynx and hypopharynx attending the ENT outpatient department of a tertiary care centre. Detailed history regarding tobacco consumption, including type, duration, and cessation period, was recorded. Tumor site and histopathological grading were correlated with tobacco usage patterns. **Results:** Out of 75 patients, 60 (80%) had a history of tobacco consumption, while 15 (20%) were non-tobacco consumers. The glottic region was the most commonly involved site. Well-differentiated squamous cell carcinoma was the predominant histopathological type. Longer duration of tobacco exposure was associated with poorer tumor differentiation. **Conclusion:** Although tobacco remains the most significant risk factor, a substantial proportion of patients with laryngeal and hypopharyngeal carcinoma do not consume tobacco. This highlights the importance of identifying other etiological factors and emphasizes the need for further research.

KEYWORDS : Laryngeal carcinoma, Hypopharyngeal carcinoma, Tobacco consumption, Non-tobacco users, Upper aerodigestive tract

INTRODUCTION

Cancers of the upper aerodigestive tract (UADT) account for approximately 4% of all malignancies worldwide and represent a major cause of cancer-related morbidity and mortality. These malignancies primarily arise from the epithelial lining of the oral cavity, pharynx, and larynx. Among UADT cancers, carcinoma of the larynx and hypopharynx are particularly associated with tobacco and alcohol consumption.

Tobacco use, in smoked or smokeless form, exposes the mucosa of the upper aerodigestive tract to a wide variety of carcinogens. Prolonged exposure leads to cellular dysplasia and malignant transformation. Alcohol acts synergistically with tobacco by increasing mucosal permeability to carcinogens. Despite this strong association, carcinoma of the larynx and hypopharynx has been reported in patients without any tobacco exposure.

Passive smoking, Human Papilloma Virus infection, gastroesophageal reflux disease, genetic susceptibility, nutritional deficiencies, and occupational exposures have been proposed as possible etiological factors in non-tobacco users. Understanding these patterns is essential for early diagnosis, prevention strategies, and patient counseling.

AIMS AND OBJECTIVES

1. To study the patterns of tobacco consumption in patients with laryngeal and hypopharyngeal carcinoma.
2. To determine the proportion of non-tobacco consumers among these patients.
3. To correlate tobacco consumption patterns with the site of origin of the carcinoma.
4. To correlate tobacco consumption patterns with the histopathological grade of the tumor.

MATERIALS AND METHODS

Study Design:

This was a retrospective observational study.

Study Setting:

The study was conducted in the Department of Otorhinolaryngology of a tertiary care teaching hospital.

Study Population:

Seventy-five patients diagnosed with carcinoma of the larynx or hypopharynx were included in the study.

Inclusion Criteria:

Patients with histopathologically confirmed carcinoma of the larynx or hypopharynx.

Exclusion Criteria:

Patients with recurrent carcinoma or incomplete medical records.

METHODOLOGY:

Clinical records were reviewed to obtain demographic data, presenting complaints, tobacco consumption history, duration of use, and cessation period. Tumor site was determined by clinical examination and endoscopy. Histopathological grading was done using biopsy specimens. Data were analyzed descriptively.

OBSERVATIONS AND RESULTS

Age Distribution:

The majority of patients belonged to the 61–70 year age group, indicating a peak incidence in the sixth and seventh decades of life.

Sex Distribution:

Out of 75 patients, 67 (89.3%) were males and 8 (10.7%) were females, with a male-to-female ratio of 8.4:1.

Site Distribution:

The glottic region of the larynx was the most commonly involved site, followed by supraglottic and hypopharyngeal regions.

Pattern of Tobacco Consumption:

Smoking was the most common form of tobacco consumption. Twenty percent of patients did not have any history of tobacco use.

Histopathological Differentiation:

Well-differentiated squamous cell carcinoma was the most common histological grade, followed by moderately differentiated carcinoma. Poorly differentiated carcinoma was observed in patients with prolonged tobacco exposure.

DISCUSSION

The present study reinforces the strong association between tobacco consumption and carcinoma of the larynx and hypopharynx. The predominance of male patients reflects higher tobacco usage among males. The glottic region being the most commonly affected site is consistent with existing literature.

An important observation in this study is the relatively higher proportion of non-tobacco users compared to previous reports. This suggests that factors other than tobacco may play a significant role in carcinogenesis. HPV infection, passive smoking, genetic factors, and gastroesophageal reflux disease may contribute to malignant transformation in non-tobacco users.

The association between duration of tobacco consumption and histopathological grade underscores the importance of early cessation to reduce disease severity.

CONCLUSION

Tobacco consumption remains the most important risk factor for carcinoma of the larynx and hypopharynx. However, a significant proportion of patients develop these malignancies without tobacco exposure. Identification of other etiological factors is crucial for prevention and early detection. Public health strategies should focus on tobacco cessation as well as awareness regarding non-tobacco-related risk factors.

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