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RISK FACTORS FOR ORAL CANCERS AMONG PATIENTS IN WESTERN PROVINCE: A MATCHED CASE-CONTROL STUDY

Gunasekara BAPL[1], Gunasekara GBN[1], Gunathilake HANH[1], Gunawardana WAN[1], Handugala HDMA[1], Siriwardhana ID[2], Samarasinghe SM[3]*

[1]Faculty of Medicine, University of Moratuwa, Sri Lanka; [2]Department of Biochemistry and Clinical Chemistry, Faculty of Medicine, University of Moratuwa; [3]Department of Physiology, Faculty of Medicine, University of Moratuwa.

[*]Corresponding Author: gunawardanawan.20@uom.lk

Background: Oral cancer is the leading cancer among men and the ninth among women in Sri Lanka. Identifying risk factors of oral cancer will significantly reduce its incidence. This study aimed to assess the risk factors of oral cancers among patients in Western Province by describing the levels of exposure to factors with a potential association.

Methods: This study was a hospital-based matched case-control study. Patients diagnosed with oral cancer within the past 6 months, confirmed by histology, and receiving care at Apeksha Hospital, Maharagama were selected as the case group. Patients under 18, those with communication difficulties, severe illness, metastatic or recurrent oral cancers were excluded. The control group included the people in Western Province who are age and sex-matched to the case and don't have any oral pathologies on oral examination presenting to the OPD of Teaching Hospital Kalutara, for non-oral ailments. Informed written consent from participants were obtained. 126 participants were recruited through convenient sampling. Data were collected using a structured interviewer-administered questionnaire. Data were analysed using IBM SPSS version 25. Demographic and socio-economic characteristics were described in proportions and percentages through descriptive statistics. Data analysis was done using odds ratios (95% CI) to assess the risk factors.

Results: 100% response rate was achieved. There was a statistically significant risk of developing oral cancer among smokers, betel chewers and alcohol consumers compared to never consumers. (smoking OR=3.09, 95% CI:1.48-6.43, betel chewing OR=3.67, 95% CI:1.73-7.81, alcohol OR=2.53, 95% CI:1.14–5.58). No statistically significant association between oral cancer and oral hygiene, diet and physical inactivity were identified.

Conclusion: Smoking, alcohol consumption, and betel chewing have a statistically significant association with increased risk of oral cancer among people in the Western province.

Keywords: Oral cancer, risk factors, matched case-control study