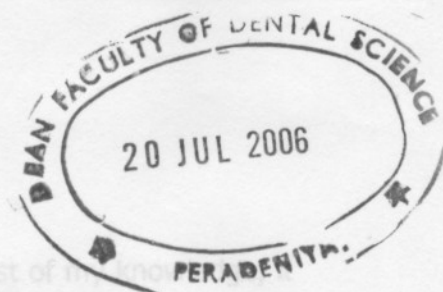


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Declaration

I declare that this thesis is my own work and that, to the best of my knowledge, it contains no material previously published or substantially overlapping with that published by me or by any other person for the award of any degree at any institution.

A COMPARATIVE STUDY OF ORAL SQUAMOUS CELL CARCINOMA IN THE YOUNG AND THE OLD

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Abstract Results of present study showed that male predominance of both younger and older

Squamous cell carcinoma is a malignancy of the squamous epithelial cells. Cancers of the oral cavity accounts for 274,000 cases in 2002, with almost two-thirds of them are in men. Oro-pharyngeal carcinoma is a major oncological problem in certain groups in Sri Lanka and other parts of South East Asia and it accounts for 16.8% of all cancers in Sri Lankan patients. It typically occurs in the elderly men during the 5th to 8th decade of life. Incidence of oral cancer in younger patients of age is reported to be approximately 6% of all oral cancers in the United Kingdom. As squamous cell carcinoma is uncommon below the age of 40 years, little is known about its possible aetiology. In India and other countries in South East Asia including Sri Lanka, the chronic use of betel quid has been strongly associated with an increased risk of oral cancer. A significant number of oral cancers were developed at the site of tobacco placement in smokeless tobacco users.

grades I, II and III and also showed a positive correlation with Broder's grades and

The objectives of the study were to compare the demographic, aetiological/ risk factors in young and older patients with oral squamous cell carcinoma and to find out the relationship between the socio economical status and the incidence of squamous cell carcinoma in both groups. Also to compare histopathological parameters and survival rate of above two groups.

When compared the individual parameters such as

The study sample comprised of two groups of patients based on the age of the patient. The patients who were 40 years or less were considered as the young age group and the patients who were 50 years and over were considered as the older age group. The final sample size was 56 in each group with a total of 112 patients.

The results of present study showed that male predominance of both younger and older groups comprising 4:1 and 3.7:1 respectively. 96.4% of older group had the habit of betel chewing with all ingredients and with or without other aetiological factors such as smoking and alcohol. 61% of young patients also practiced such habits. The present study showed that 39.28% of younger patients had never practiced any of the above risk factors. Interestingly in contrast to older patients, many younger patients with tongue squamous cell carcinoma have never smoked or consumed alcohol. The common sites of occurrence of squamous cell carcinoma were buccal mucosa 37.5% ($P < 0.05$) and alveolar ridge 25% ($P < 0.01$) in the older group. In contrast younger group of this study revealed tongue as the commonest site to be affected 41% ($P < 0.01$).

Survival rate with regard to histopathology, there was no significant relation was found. Majority of patients in both younger and older groups were distributed within Broder's grades I, II and III and also showed a positive correlation with Broder's grades and lymph node metastasis. That is less differentiated grades showed higher tendency of lymph node metastasis. Although the results of the current study showed no significant difference between two groups, there is a positive correlation was found in sum of scores of 5 parameters and lymph node metastasis according to Anneroth's and modified Bryne's grading systems. When compared the individual parameters such as Keratinisation, pattern of invasion, host immune response, nuclear aberrations and number of mitoses with metastasis showed a ⁿinverse relation, although there were no difference between two groups. That is lower the score higher the tendency of metastasis. Even though similar numbers of patients were distributed within individual parameters

list of their younger counterparts.

without giving much difference, number of mitoses is significantly higher in the younger group.

The present study revealed that 39% of older patients had recurrences compared to the younger group of 30%. The 3-year survival rate of this comparative study in both younger and older groups were 91% and 87.5% respectively. In this study women in younger group had better 3-year survival (90%) than older group (83%). Patients who did not practice any habits (94%) showed higher survival rate than the patients who had habits (85%). When consider the survival in relation to the primary site, there was no significant difference between different sites of both younger and older groups.

Survival rate with regard to histopathology, there was no significant relation was found according to Broder's, Anneroth's and modified Bryne's grading with survival rate. Pattern of invasion at the advancing front of the tumour and nuclear aberrations have an influence on survival.

In conclusion, oral squamous cell carcinoma is a male predominate lesion in both younger and older patients. Majority of younger group did not show any identifiable risk factor. About 95% of the study sample was belong to lower socio-economic group. Tongue was the commonest site in younger patients where as buccal mucosa was the commonest in the older patients. Although there is no identifiable histopathological difference, lymph node metastatic rate was higher in the older group. 3-year survival rate is more or less equal in two study groups. Recurrences were higher in older patients than that of their younger counterparts.

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