

## **HISTOPATHOLOGICAL COMPARISON OF PRIMARY ORAL SQUAMOUS CELL CARCINOMAS OF SRI LANKAN PATIENTS WITH REPORTED WESTERN STUDIES**

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Differences have been reported in the aetiology, onset of the disease, and the prevalence of Oral Squamous Cell Carcinomas (OSCCs) between Sri Lankan (south-east Asian) and western population groups. However, none of the studies has highlighted the histopathological difference between western and Sri Lankan OSCCs. The aim of the present study was to identify the histopathological differences between these two population groups.

The sample consisted of 75 formalin fixed paraffin embedded primary oral squamous cell carcinomas from Sri Lankan patients. The mean age of the sample was  $62.43 \pm 12.09$  years. The OSCCs were histopathologically evaluated using Bryne's malignancy reading and classified according to Bryne's prognostic groups. The histopathological parameters of the present study were compared with reported studies on OSCCs of western population groups using Bryne's malignancy grading. Bryne's original study and western studies published in the international medical literature on this subject to date were obtained through personal communications and from different web sites for comparison.

When the total sample was grouped against Bryne's prognostic groups, there were 26 tumours in the group between 9-12 and 49 tumours were in the group between 13- 20. There were no tumours that could be classified into low grade of malignancy (5-8). The comparison showed that more than 95% of the tumours in the present sample had non- keratinised or minimally keratinised invasive fronts. However, invasive front keratinisation has been observed in OSCCs among western samples. In analyzing the host response, it was observed that none of the tumours in the sample showed absence of lymphoplasmocytic cell infiltrate at peritumoral area (Grade 4 in Bryne's score). On the other hand in western samples, there were tumours without peri tumoural lymphoplasmocytic cell infiltrate.

It was observed that less aggressive tumours were uncommon among Sri Lankan OSCCs compared to majority of western samples. Keratinisation, a feature of differentiation was minimal at the invasive fronts in Sri Lankan sample compared to majority of western studies. Substantial lymphoplasmocytic cell infiltrate at the invasive front which represents the immune response of the host may be a better prognostic indicator for the Sri Lankan sample compared to western samples (where some tumours showed no host response at all). Variations in the aetiological and/or genetic factors may be some of the reasons for these differences. More studies with statistically confirmed direct observations using samples from both population groups are mandatory for the verification of the findings.