HISTOPATHOLOGICAL EVALUATION OF IMMUNE RESPONSE OF THE HOST VERSES THE AGGRESSIVENESS OF THE TUMOUR CELL POPULATION IN ORAL SQUAMOUS CELL CARCINOMAS (OSCCS)

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Revelation of the possibility that the host immune response to specific tumour might lead to tumour regression or destruction has drawn much attention into tumour immunology. Aim of this study is to evaluate the association of the host immune response with that of histopathological features of the tumour cell population which denote the tumour aggressive ness in OSCCs.

Sample consisted of 75 formalin-fixed paraffin-embedded OSCCs (61.96±12.32: Males: 55). A section from each tumour was stained for histopathological investigation using H&E. Nuclear pleomorphism, mitotic count and keratinisation were used to assess the tumour cell population in the deep invasive fronts. The immune response was evaluated by grading the plasmo-lymphocytic infiltration (PLCI) at the sub-tumoral area, opposite to the invasive fronts. Each parameter was scored on a point scale running from 1 to 4, as in Bryne's grading. A total score for the tumour variables was calculated by summing the values for each parameter. The host response versus tumour variables were statistically analysed to study the interrelationship.

PLCI was not significantly different either in the tumours between high and low grades of pleomorphism (χ^2=1.94,p=0.16) or between tumours with high and low mitotic counts (χ^2=2.88,p=0.09). Pooled data for pleomorphism and mitosis also showed that PLCI was not significant different between high and low grades (χ^2=5.0,p=0.08). However, the tumours with high keratine scores at the deep invasive fronts showed significantly higher grades of host immune responses (χ^2=10.15,p=0.01).

This implies that there is no association between the histopathological parameters of the tumour cell population group and the immune response of the host in OSCCs. However, heavy peri-tumoral plasmo-lymphocytic cell infiltration in some tumours would be due to deeply seated keratine and not due to the true immune response against the tumour per se.