

PROGNOSTIC SIGNIFICANCE OF MALIGNANCY GRADING, CELL PROLIFERATION AND P53 EXPRESSION WITH REFERENCE TO THE SURVIVAL OF THE PATIENTS WITH ORAL SQUAMOUS CELL CARCINOMAS (OSCCS).

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The assessment of the prognosis of OSCCs is of great importance, as the survival of patients and the selection of an individual therapy is based upon it. The combined study of patient factors and tumour factors would be valuable to assess the predictive capacity of biological markers and prognosis of patients. Our aim was to correlate the malignancy grading, gender and expression of selected tumour markers namely p53 and Ki67, in OSCCs with that of survival of the patients to evaluate the prognostic significance them.

The sample consisted of 60 biopsies of formalin fixed paraffin-embedded primary OSCCs which had deep invasive fronts on H&E sections (Males:48, Females:12, mean age:59.07±11.87). The malignancy grading was performed using Bryne's method and scores were stratified as high (>12) and low (<12) (possible range 5-20). Consecutive sections were immunostained for p53 and Ki67 (with and without microwaving) (p53:DO7, Novacastra, Dil 1:100/ MIB-1; Immunotec, Dil 1:30). The p53 results recorded as both intensity of expression and percentage of positivity. Mean proliferative index estimated separately for the body and the invasive fronts. The patients under study were on regular and periodical follow up through out the five years period in six months intervals. The follow up data obtained from the hospital recodes. Survival cures were plotted using the Kaplan-Meier method. The prognostic significance of the parameters on survival was determined by using Cox regression ($p < 0.05$).

p53 positivity was 58% with and 41% without microwaving. Mean proliferative index was 29.75±11.64 for the invasive front and 25.65±11.64 for the body. Five years following therapy, the survival rate was 65% with patients who had low Bryne's scores and 20% in whom the Bryne's scores were high. Cox regression analysis on survival cures showed a significant difference between Bryne's scores ($X^2=5.12$, $p=0.025$). When Kaplan Meier curves plotted with gender, five years survival for males were 45% and 55% for females and difference between sexes was significant ($X^2=9.26$, $p=0.002$). Application of Cox regression on survival curves of the patients with p53 immuno staining (both for microwaving and nonmicrowaving) showed no statistically significant results (Microwave: $X^2=0.91$, $p=0.63$, nonmicrowave: $X^2=0.11$, $p=0.73$). Analysis of survival curves on mean proliferative index also showed no significance (invasive front: $X^2=0.19$, $p=0.66$, body: $X^2=0.001$, $p=0.97$).

Our results showed that the expression of p53 and cell proliferation assessed by mean proliferative index has no value as prognostic parameters. However, Bryne's malignancy grading and the gender showed a significant value as prognostic indicators in our sample.