SDM
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"EXPRESSION OF E-CADHERIN IN METASTATIC AND NON-METASTATIC ORAL SQUAMOUS CELL CARCINOMA: AN IMMUNOHISTOCHEMICAL STUDY"

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ABSTRACT

BACKGROUND:

E-cadherin glycoprotein encoded by CDH1 gene represents calcium dependent intercellular adhesion molecule whose loss has been demonstrated to promote invasion and metastasis in various cancer models. Thus CDHI gene is considered as a tumour suppressor gene. So the aim of the present study is to identify clinicopathological correlation of E-cadherin expression in metastatic and non-metastatic oral squamous cell carcinoma and to determine whether it has a role in inhibiting metastasis.

METHODS:

This study constituted a total of 90 cases, 45 cases each of primary lesions of metastatic and non-metastatic oral squamous cell carcinoma. Two paraffin embedded tissue sections each from the above study groups were taken. One section was subjected to routine Hematoxylin and eosin stain and another to immunohistochemical analysis for E-cadherin. Clinicopathological parameters were correlated with the E-cadherin expression. Expression of E-cadherin in the membrane alone and membrane and cytoplasm combined in the tumour cells were considered as immunopositive. Data analyzed was subjected to Chi-square test.

RESULTS:

It was observed that although there was a loss of E-cadherin expression in both metastatic and non-metastatic group. However, there was a numerical increase in the expression of E-cadherin in non-metastatic OSCC compared to metastatic OSCC without any statistical

difference between the two study groups. E-cadherin expression and clinical parameters such as age, gender, habits did not reveal any statistical correlation. With respect to histological differentiation of OSCC a significant association was noted in well differentiated type of metastatic OSCC as compared to non-metastatic OSCC. Additionally, it was noted that the expression of E-cadherin in well differentiated OSCC in metastatic OSCC was more than the expression in well differentiated type of non-metastatic OSCC.

CONCLUSION:

Based on the present study it can be concluded that E-cadherin was useful to some extent in predicting regional metastasis, however further studies using panel of biomarkers with increased sample size may help us in understanding the process involved in metastasis.

Keywords: E-cadherin ; Metastatic; Non-metastatic; Oral squamous cell carcinoma.