A Study of IHC Staining Pattern of Mammaglobin in Various Breast Lesions in A Tertiary Care Centre

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Abstract

Aim: The aim of the present study was to study the expression pattern of mammaglobin in various breast lesions. The study was carried out by using mammaglobin as a marker to the difference between benign and malignant lesions. Methods: The study was done in the Department of Pathology, at Prathima Institute of Medical Sciences, Karimnagar. Two micro-sections of 4-5 micron thickness were prepared from the corresponding paraffin blocks, one on albumin coated slide for H&E staining and the other on poly-L-lysine coated slide for immunohistochemical staining. Histological typing of the tumour was done. Immunohistochemical staining of mammaglobin protein was done using peroxidase–anti-peroxidase method according to the protocol described by DAKO. The slides were then examined under the microscope and mammaglobin positivity is classified as positive (score 3&4) and negative (score 1&2). Results: A total of 40 breast lesions are included in the immunohistochemical study, of which 10(25%) were benign, 30(75%) were malignant. Out of total n=10 benign lesions, mammaglobin expression was found negative in n=9 lesions and the only n=1 lesion was found to be positive for mammaglobin. Out of the 30 malignant lesions, n=22(73.3%) were positive and n=8 (26.67%) were negative for mammaglobin expression. Conclusion: It is concluded that Mammaglobin is a useful marker for malignant breast lesions. Mammaglobin is a novel promising marker for neoplastic breast epithelial cells. It can be used as a molecular marker for early detection, prognosis and relapse monitoring for breast cancer cases.