IMMUNOHISTOCHEMISTRY PANEL IN BREAST CARCINOMA WITH STROMAL CD10 EXPRESSION

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ABSTRACT

AIMS AND OBJECTIVE: -

1) To study the expression of ER, PR, HER2neu, Ki67 and E-Cadherin in breast carcinoma.
2) To analyze the stromal expression of CD10 in Breast carcinoma.
3) To correlate the CD10 expression with ER, PR, HER2neu, Ki67 and E-Cadherin Immunohistochemical markers and other clinicopathological parameters.

TYPE OF STUDY: - Hospital based cross-sectional study.

MATERIALS AND METHODS: -

Inclusion criteria:

* All trucut breast biopsies, lumpectomy, simple mastectomy, modified radical mastectomy specimens received in the histopathology department of SDM College of medical sciences.

Exclusion criteria:

* Inadequate and non-representative samples are excluded.
* Patients who have received pre-operative neoadjuvant chemotherapy.

RESULTS: -

A total of 60 cases of breast carcinomas were included in the study. The most common age group involved in the study was between 41-50 years 18(30%). The most common histopathological type of breast carcinoma was invasive breast carcinoma-NST 51(85%). Histologic grade 1 tumours were seen in 30(33.3%), grade 2 tumours were seen 32(53.4%) & grade 3 was seen in 8(13.3%) of cases. 93.3% of the cases were positive for stromal expression of

CD 10, among which 16(26.6%) cases showed weak CD 10 positivity & 40(66.7%) cases showed strong CD 10 positivity. Correlation of CD 10 expression with the age of the patients was significant [p=0.0013]. Menstrual status [p=0.13], tumour size [p=0.22], histopathological type [p=0.99], histologic grade of the tumour [p=0.17], lymph node status [p=0.97], stage of the tumour [p=0.08] did not correlate with the CD 10 expression. The correlation of CD 10 with ER & PR [p=0.17], HER2neu [p=0.37], E-cadherin [p=0.58], Ki-67 index [p=1] & triple negative carcinomas[p=0.35] did not correlate with the CD 10 expression.

CONCLUSION: -

There was a broad expression of CD 10 in the stroma of cases of invasive carcinoma & negative expression of CD 10 in the stroma of the normal breast.

The role of CD 10 in in tumour progression is to be studied in further detain & to be incorporated in routine IHC panel. Various studies have proved the association with higher grade of tumour & with a worse prognosis[62]. CD 10 is a potential target for therapeutic agents & the scope for research is ample.

As the sample size of the present study was small, further studies need to be done on a larger sample size, nevertheless the scope for this study still prevails.