# ABSTRACT

**BACKGROUND**: Breast carcinoma is the most common cancer among women, also tops the list of cancer death among women, living in under developed countries. The mortality of breast carcinoma is attributed to metastatic disease.CD10 is a 90-110 kD cell surface metalloproteinase, that may play a role in degrading extra cellular matrix and collagen, providing a microenvironment favourable for invasion and metastasis.

**AIM AND OBJECTIVES:**

- To study the stromal expression of CD 10 antigen in patients diagnosed as invasive ductal breast carcinoma by histopathological examination.
- To study relationship with:

- **1. Age, 2. Menopausal status 3. Histologic subtypes 4.Nottingham's grade and 3. Nottingham's Prognostic index, 4. Mitotic rate and 5.Lymph node metastasis** of the patients.

**MATERIALS AND METHODS**:

A total of 60 patients of breast cancer were included in the study. Representative sections were taken and Hematoxylin and Eosin staining was done. Immunohistochemistry was performed with CD10. Stromal expression of CD10 (10%-30% stromal positivity was considered weak positive, >30% as strong positive) in invasive breast carcinoma was noted and was statistically analysed.

**RESULTS:**

Stromal expression of CD10 was found to be significantly associated with increasing tumor grade ($P$ = 0.047), Lymph node metastasis ($P$ = 0.013) and Nottingham's Prognostic index ($P$ = 0.009). No correlation was found between CD10 expression and age, menopausal status, histologic subtypes, tumour size and mitotic rate.

**CONCLUSION**

- The stromal expression of CD10 has significant correlation with **higher histological grade , lymph node metastasis, Nottingham's prognostic index.** There is no correlation between CD10 expression and age menopausal status, histologic subtypes, tumour size and mitotic rate.
- This study highlights the role of stromal CD10 expression in predicting tumor response and prognosis. Hence CD10 could be used as a prognostic marker.

**Key words:** CD10, stromal expression, Breast carcinoma.