

STUDY OF ER, PR, HER2neu ON MALIGNANT BREAST LESIONS & CORRELATION WITH OTHER PROGNOSTIC PARAMETERS

SUDHASHMITA RAUTA¹ & JAYASHREE RATH²

¹Post Graduate, Department of Pathology, SCB Medical College, Cuttack, Odisha, India

²Professor, Department of Pathology, SCB Medical College, Cuttack, Odisha, India

ABSTRACT

Breast cancer is a leading cause of cancer related mortality in Asian countries. Management of breast cancer depends on several tumour and patient related factors. The aim of this study is to determine if any correlation exists between estrogen receptor(ER), progesterone receptor(PR) & Her-2/neu overexpression, grade, tumor size and lymph node status in carcinoma breast. A total 50 cases of invasive duct cancers were included in this study. The hormone receptors, Her2/neu were assessed immunohistochemically and compared with age, size, grade and lymph node status of tumor. The prevalence of ER PR was found to be 64% and 81% of cases.

Correlating the above factors with hormone receptor status, it was found that increase positivity of ER/PR in post menopausal age group(68.2%), small tumor size(77.4%) negative lymph node status(45.16%) and moderately differentiated tumors(77.4%). Her2 was overexpressed in 24% of cases. Majority(75%) of young age group(30-39 yrs) patients showed strong positivity for Her-2/neu. Likewise it was found to be overexpressed mostly in large tumor size(40% of T3 stage & 100% of T4 stage), high grade tumors(75% of grade III tumors).

Assessing the relationship between these molecular markers, most hormone receptor positive cases(85%) showed Her2/neu negativity. The prevalence of ER, PR and Her2/neu amplification in breast cancer in the present study is similar to international data and correlated significantly with other prognostic factors. Assessment of molecular markers in breast cancer is strongly recommended to provide best therapeutic options.

KEYWORDS: Breast Cancer, Estrogen, Her2/neu, Progesterone