

Summary

Breast cancer is a broad term that encompasses a variety of conditions with different clinical characteristics and outcomes. Breast cancer used to be classified based on clinical and cytopathological characteristics, however, this is no longer the case because breast cancers with indistinguishable histopathological and clinical characteristics might have varied outcomes and chemotherapy susceptibility. Molecular categorization of breast tumors is more expensive and difficult to get by. HER-2.neu overexpression, luminal A, luminal B & triple-negative are the main subtypes of breast cancer. The approaches of this research were to utilize immunohistochemistry to assess the frequency of distinct molecular subtypes, to analyze the correlation between each subtype, and clinicopathological characteristics. This research analyzed 800 formalin-fixed paraffin-embedded tissue blocks that were tested positive for invasive ductal carcinoma of the breast. Immunohistochemistry was performed on each sample by using estrogen receptor, progesterone receptor, and HER 2 neu. Breast cancer subtypes and grades were evaluated by the expression patterns of breast receptors. Different clinicopathological features were correlated with each subtype. The maximum number of patients was between the 41-50 years age range and the average age was 42.4 ± 12.6 years. The most common grade of breast cancer detected in our population was histological grade II, which was diagnosed in 443 samples (55.4 %). There were 245 (30.6%) Luminal A subtype samples and 234 (29.3%) Luminal B subtype samples among the 800 breast cancer patient samples tested. 136 (17%) were Her 2 positive, and 185 (23.1%) were of the Triple-negative subtype. The most prevalent tumor differentiation status was moderately differentiated malignancy, which was found in 437 cases (54.6%). The high number of cancer-positive cases in the younger population and high grades depict an alarming situation. Luminal A was the most common breast cancer subtype. This is an extreme situation that represents our society's illiteracy, destitution, incompetence, and carelessness. Immunohistochemistry with a variety of immunomarkers can be utilized as an alternative gene expression analysis.

