

## Breast Cancer

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Breast cancer is one of most common malignant tumors with the highest incidence and the second highest mortality among all malignant tumors in females. Activation of EGF receptor and HER2 is an important factor for initiation and progression of malignancies, including breast cancer where the status of HER2 is an essential step in the diagnostic workup; EGFR overexpression has been associated to the so-called basal-like breast carcinomas, which opens a new avenue for diagnosis and therapeutic approach in these tumors. In

this study HER1 codon 497 and HER2 codon 655 polymorphisms in breast cancer patients of 19 malignant and 43 controls were genotyped by PCR-restriction fragment-length polymorphism-based assay and the association of the polymorphic alleles with breast cancer evaluated. It is found that there is high risk for breast cancer in HER1 R 497K mutation OR=2.5 and for HER2 Ile655Val mutation OR=2.2 but combined HER1 Lys and HER2 Val mutation showed lower risk OR=1.2.