

DNA Microarray and Breast Cancer-A Review

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ABSTRACT Microarray is a powerful tool used widely to characterize tumors and has greatly improved the ability to subclassify tumors according to shared molecular characteristics and clinical behavior. It is a method to measure the expression of a large number of genes in any specimen simultaneously. Researchers at Stanford University were the first to describe and use DNA microarray to study gene expression in various diseases including cancer. Breast cancer is the second most common cancer among Indian women. Multiple factors like age, diet, obesity, parity, age at first childbirth, oral contraceptives, exogenous estrogens, genetics, environment, geographic location influence the development of this heterogeneous disease. Gene expression in these cancers by microarray is fast gaining in popularity in providing better prognostic and predictive information on the disease. This review is an attempt to look at the recent advances in breast cancer research with DNA microarray technology.