Association of CTLA-4 gene 49 G/A polymorphism in breast cancer patients with invasive ductal carcinoma

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Weak immunity surveillance has been the main reason for progression and rapid development of various cancers reported. Though the association between cytotoxic T-lymphocyte antigen-4 (CTLA-4) gene 49 G/A polymorphism and breast cancer has been widely assessed, a definitive conclusion remains elusive and is still focused by scientific community. The present study aims to evaluate the potential influences of CTLA-4 gene polymorphisms on breast cancer risk in invasive ductal carcinoma of tumor tissue and healthy tissues. Tumor tissue of forty confirmed that breast cancer patients were included as cases. The same forty patients’ adjacent non-tumor tissue samples were considered as controls. The prevalence of AA, GG and AG genotypes was 42.1%, 15.82% and 42.8% in the tumor tissue and non-tumor tissues respectively. Individuals containing tumor and non-tumor tissue samples showed significant difference in breast cancer, in which homozygous A/A and heterozygote G/A found to be more significant than G/G genotype. The study confirmed that the presence of at least one ‘A’ allele may increase the risk of breast cancer when compared to the presence of ‘G’ allele in same patient.

Biography
Ch. Sushma completed her Bachelors’ degree in Genetics in 2007 as combination subjects, followed by Master’s in Genetics in 2009 and joined PhD in 2011 in Department of Genetics under the supervision of Prof. K Rudrama Devi. She is interested in research and especially to work on woman related cancers. She has collaboration with Indo American Cancer Hospitals for specimen collection and collected about 150 paired tissue specimens for the research work. Two of her manuscripts have been accepted in international journals; “Asian Pacific Journal of Cancer” and “International Journal of Biotechnology”. She has been working on 4 different gene polymorphisms and conducting the correlation study with each impact on breast cancer.

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