

POSTER PRESENTATION

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IL 10 gene -1082 G/A shows an association with rheumatoid arthritis patients of South Indian Population

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Background

Rheumatoid arthritis (RA) is a systemic, chronic and inflammatory joint disease of unknown etiology with genetic predisposition. This disease is three times more frequent in women than men and is strongly associated with the circulating auto-antibodies like rheumatoid factor (RF) and anti cyclic peptide antibody (ACPA). The cytokine network dysfunction plays a vital role in the pathogenesis of rheumatoid arthritis. The purpose of the study was to understand the autoantibody specificities and its association with Disease activity score Interleukin 10(-819 T/C, -592 A/C & -1082 G/A) promoter polymorphisms in rheumatoid arthritis patients of South Indian population.

Materials and methods

According to ACR criteria 1987, 168 rheumatoid arthritis patients and 244 controls groups were selected as study population. Genotyping of IL-10 promoter regions -819T/C and -592 A/C were performed by PCR- Direct sequencing and -1082 G/A promoter polymorphism by PCR- RFLP method.

Results

The results show that -1082 G/A promoter region shows a significant association with rheumatoid arthritis patients in South Indian population (genotypic $p = 2 \times 10^{-4}$ & allelic $p = 2 \times 10^{-5}$). The disease activity score were positively correlated with rheumatoid factor of RA patients ($p = 4 \times 10^{-2}$).

Conclusions

The study concludes that the allele G of -1082 promoter region predisposes susceptibility to Rheumatoid Arthritis. We also found a strong association of positive rheumatoid factor with the disease phenotype in RA patients.

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