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**Evaluation of Galectin-3 Genetic Variants and its Serum Levels  
in Rheumatoid Arthritis in North India**

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**KEYWORDS** Atherogenic Index. C-Reactive Protein. Inflammation. Lipid Profile. Single Nucleotide Polymorphism

**ABSTRACT** The aim of present study was to evaluate the role of galectin-3 variants (rs4644 and rs4652) and its serum levels as predisposition factor for Rheumatoid Arthritis (RA) in North India. The present study recruited 200 RA patients and 200 unrelated age, gender and ethnicity matched controls. Genotyping of rs4644 (+191C/A) and rs4652 (+292A/C) was performed by PCR- RFLP. Serum galectin-3 levels and hs-CRP (high sensitivity-C reactive protein) levels were assessed using ELISA kits. Different lipid profile biomarkers were quantified using standard reagents and kits. *LGALS3* +191(C>A) showed significant difference ( $p<0.05$ ) in genotypic distribution between patients and controls. Patients were found to have high serum galectin-3 levels, high atherogenic index and higher levels of hs-CRP ( $p<0.01$ ). These results indicate that genetic polymorphism in galectin-3 gene may contribute to development of RA.