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## Association analysis of 3'UTR gene polymorphisms of TLR4, NLRP3 and miRNA with chronic periodontitis in south Indian ethnicity

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Periodontitis is a chronic inflammatory disease of multifactorial etiology. Although gram negative anaerobes are essential in initiating the disease, many other factors determine the course and progression of the periodontal destruction. Among the various risk factors, the genetic component of the host plays a major role in periodontal destruction. The microbial agents are first screened by the pattern like receptors – Toll like receptors (TLR) and the signals are processed intracellularly by Nod like receptors - NLRP3. Thus, aim of the study was to analyze the association of 3'UTR polymorphisms of TLR4, NLRP3 gene and the micro RNAs regulating this region. The subjects were stratified into three groups - chronic periodontitis, aggressive periodontitis and controls. The sample size was 240. DNA extraction from blood samples was done and the polymorphisms were analyzed using real time PCR. The TLR4 (rs11536889), NLRP3 (rs10802501), miR-146a (rs2910164) were analyzed in this study.

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