

The Analysis relationship of Interleukin-1B (+3954) gene polymorphisms in Indonesian Population with Aggressive Periodontitis and Chronic Periodontitis

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Abstract: This research is aimed to determine the relationship of IL-1B (+3954) gene polymorphisms in aggressive periodontitis and chronic periodontitis in Indonesian population since recent researches suggested that IL-1B (3954) gene polymorphisms may become a risk factor for aggressive periodontitis. This research was observational analytical research with case control study design among two groups of patients. The population of this research were aggressive and chronic periodontitis patients who came to the Periodontics Clinic, Faculty of Dentistry, Airlangga University, Surabaya, Indonesia. All subjects were Indonesian population. Forty of them had suffered from aggressive periodontitis, and 40 of the others had suffered from chronic periodontitis. Genomic DNA was then extracted from the whole-blood samples, and IL-1B (+3954) gene polymorphisms were analyzed by *polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP)*. This research showed that group suffered from chronic periodontitis had a higher percentage of CT allele even though it was not statistically significant. It also showed that IL-1B (+3954) gene did not affect those patients with either aggressive or chronic periodontitis. Based on the result of IL-1B polymorphisms test, it could be concluded that there was no relation between IL-1B (+3954) gene polymorphisms in aggressive periodontitis and chronic periodontitis in Indonesian population.
Keywords : Periodontitis, Interleukin-1B genotype, polymorphisms, PCR-RFLP.