

## Correlation between SNP genotypes and periodontitis in Japanese type II diabetic patients: a preliminary study

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20427985&lokasi=lokal>

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### Abstrak

The present study aims to investigate the correlation between SNP genotype patterns and periodontitis severity in Japanese type II diabetic patients. A cross-sectional study in 43 Japanese diabetic patients with periodontitis was performed. Blood samples were drawn for single nucleotide polymorphism (SNP) analyses and periodontal index (probing pocket depth and clinical attachment level) was subsequently recorded. Twelve functional genes with SNPs that had been shown to be associated with diabetes and/or inflammation were genotyped using a nuclease-mediated SNP-specific ligation method. Subjects with two or more sites with clinical attachment level  $\geq 6$  mm and who additionally had one or more sites with pocket depth  $\geq 5$  mm were classified as having severe periodontitis. Proportions of risk genotypes/non-risk genotypes between severe and non-severe periodontitis were subsequently compared. A high frequency (21/43 participants, 49 %) of adiponectin gene polymorphism (ADIPOQ 45T > G) homozygous risk genotype (TT genotype) was observed in the participants. The frequency of TGF- $\beta$ 1 SNP (29C > T) risk genotype (TT genotype) in severe periodontitis (34 %, n = 11) was significantly higher than in non-severe periodontitis (0 %, n = 0) (p = 0.04). Our study suggests that TGF- $\beta$ 1 SNPs (29C > T) may be used as one of the risk indicators for severe periodontitis in Japanese diabetic patients.