Perbedaan distribusi polimorfisme gen tumor necrosis factor alpha (TNF-α) -308 G/A pada penyakit periodontitis dan individu sehat = Difference of tumor necrosis factor alpha (TNF-α) -308 G/A gene polymorphism distribution in periodontitis and healthy controls

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Abstrak

Latar Belakang : Single nucleotide polymorphism SNP gen TNF-? terbukti dapat meningkatkan kerentanan berbagai penyakit inflamasi termasuk periodontitis.

Tujuan : Penelitian ini bertujuan untuk melihat perbedaan distribusi polimorfisme gen TNF-? -308 G/A pada penyakit periodontitis dan individu sehat.

Metode: 100 bahan biologi tersimpan 50 sampel periodontitis dan 50 sampel kontrol dianalisa menggunakan teknik PCR-RFLP dengan enzim restriksi NcoI.

Hasil : Genotip AA tidak ditemukan dan genotip GG ditemukan dengan jumlah terbanyak pada kelompok kontrol dan periodontitis. Genotip dan alel polimorfik ditemukan lebih banyak pada kelompok periodontitis 22 dan 11 dibandingkan kelompok kontrol 8 dan 11 . Hasil uji Fisher`s Exact menghasilkan p value=0.091.

Kesimpulan : Terdapat polimorfisme gen TNF-? -308 G/A pada penderita periodontitis namun tidak terdapat perbedaan bermakna pada distribusi polimorfisme antara penyakit periodontitis dan individu sehat di populasi Indonesia p>0.05.
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Background Single nucleotide polymorphism SNP in TNF gene has been associated with several inflammatory diseases including periodontitis.

Purpose This study aimed to discover the difference of TNF 308 G A gene polymorphism distribution in periodontitis and healthy controls.

Methods 100 stored samples of from 50 periodontitis male patients and 50 controls were analyzed using PCR RFLP technique with NcoI restriction enzyme and subsequently assessed with statistical analysis using Fisher rsquo s Exact test.

Results AA genotype was absent and GG genotype was found with the highest amount in both sample. Polymorphic genotype and alelle were found higher in periodontitis sample 22 and 11 than healthy controls 8 and 11. Using fisher exact test, it was found p value 0.091.

Conclusion No significant difference of TNF 308 G A SNP distribution was found between periodontitis and controls in Indonesian population p 0.05.