Kuantifikasi streptococcus sanguinis yang diisolasi dari plak dan saliva subjek dengan dan tanpa penyakit jantung koroner : analisis menggunakan real-time PCR = Quantification of streptococcus sanguinis isolated from dental plaque and saliva of subjects with and without coronary heart disease : analysis with real-time PCR / Nasution, Aini Hariyani

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Abstrak

Latar Belakang: Penyakit Jantung Koroner merupakan penyebab utama kematian di dunia. Bakteri positif Gram dan negatif Gram telah sering diidentifikasi pada bakteremia dan disebut memiliki peran dalam penyakit vascular, termasuk Streptococcus sanguinis yang paling sering diisolasi dari pasien endokarditis dan sering dikaitkan dengan PJK.

Tujuan : Menganalisis jumlah Streptococcus sanguinis yang diisolasi dari plak gigi dan saliva subjek non-PJK dan PJK.

Metode : Koloni bakteri dari plak gigi dan saliva 16 subjek non-PJK dan 8 subjek PJK ditanam pada agar Mitis salivarius, diekstraksi DNA kemudian dikuantifikasi dengan teknik Real-Time PCR menggunakan primers spesifik 16S rRNA.

Hasil : Kuantifikasi Real-Time PCR menunjukkan perbedaan jumlah S. sanguinis antara subjek kelompok non-PJK dan PJK namun uji t tidak berpasangan menunjukkan perbedaannya tidak signifikan.

Kesimpulan : Pada subjek yang menjadi sampel penelitian ditemukan kecenderungan jumlah S. sanguinis asal plak gigi subjek PJK lebih tinggi dibandingkan subjek non-PJK dan jumlah S. sanguinis asal saliva subjek non-PJK cenderung lebih tinggi dibanding subjek PJK.
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Background : Coronary Heart Disease is the major cause of death in most countries in the world. Gram-positive and Gram-negative bacteria have been identified in bacteremia cases and said to have a role in various vascular disease, including Streptococcus sanguinis which is the most often bacteria to be isolated from endocarditis patients and often associated with CHD.

Objectives : To analyze the amount of Streptococcus sanguinis isolated from dental plaque and saliva of subjects with and without Coronary Heart Disease.

Methods : Bacterial colonies isolated from dental plaque and saliva of 16 subjects without CHD and 8 subjects with CHD are plated in Mitis salivarius agar, DNA are extracted and then quantified with Real-Time PCR technique using 16S rRNA primers.

Results : Real-Time PCR quantification shows that there’s a difference amount of S. sanguinis between the two groups of subjects but unpaired t-test shows that the differences are not statistically significant.

Conclusion : Subjects from this study shows tendency that the amount of S. sanguinis from dental plaque of CHD subjects is higher than non-CHD subjects and the amount of S. sanguinis from saliva of non-CHD subjects is higher than CHD subjects.