Kajian Interaksi Antigen Bakteri Periodontal dan Candida albicans dengan Respons Imun Humoral Saliva Subjek Periodontitis Berbagai Stage = Interaction of Periodontal Bacterial and Candida albicans Antigens with Saliva Humoral Immune Response based on Severity of Periodontitis

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Abstrak

Prevalensi periodontitis di Indonesia sangat tinggi yaitu 74,1%. Patogen keystone sebagai manipulator respons host dimediasi oleh patobion yang menjadi patogen dalam lingkungan dysbiosis yang akan memicu respons imun adaptif sehingga menyekresikan antibodi. Penelitian bertujuan untuk menganalisis hubungan antara keberadaan polimikrobial dengan respons imun humoral saliva berdasarkan keparahan periodontitis dan status periodontal. Desain penelitian ini adalah observasional potong-lintang. Pemeriksaan status periodontal dan pengambilan sampel saliva dilakukan pada 39 subjek periodontitis berbagai stage dan periodontal sehat. Keberadaan antigen dan respons imun humoral saliva dideteksi menggunakan teknik berbasis imunologi. Keberadaan antigen A. actinomycetemcomitans tertinggi pada kelompok periodontitis stage IV. Respons imun IgA saliva terhadap antigen F.nucleatum (p=0,014) dan C.albicans (p=0,009) menunjukkan perbedaan signifikan berdasarkan keparahan periodontitis. Hubungan signifikan ditemukan antara indeks plak dengan respons imun IgG saliva terhadap C.albicans. Hasil analisis menunjukkan hubungan antara indeks kebersihan mulut dengan respons imun IgA saliva terhadap antigen A. actinomycetemcomitans (p=0,008) dan C. albicans (p=0,031). Terdapat hubungan antara indeks perdarahan papila dengan respons imun IgA saliva terhadap antigen A. actinomycetemcomitans (p=0,003), F.nucleatum (p=0,002), dan C.albicans (p=0,008). Antigen A.actinomycetemcomitans, respons imun IgA serta IgG saliva terhadap antigen F.nucleatum dan C.albicans dapat menjadi biomarker keparahan periodontitis.
.....The prevalence of periodontitis in Indonesia remains high (74.1%). Keystone pathogens as manipulators of the host response are mediated by pathogens that become pathogens in a dysbiotic environment that will trigger antibodies. The objective was to analyze the relationship between the presence of polymicrobial and salivary humoral immune responses based on the severity of periodontitis and periodontal status. The study design was cross-sectional. Saliva sampling were performed in 39 subjects with periodontitis and healthy periodontal. The presence of antigens and immunoglobulins were detected by immunology-based techniques. The presence of A.actinomycetemcomitans antigen was higher in the stage IV periodontitis group. The salivary IgA against F. nucleatum (p=0.014) and C. albicans (p = 0.009) showed significant differences based on the severity of periodontitis. A significant relationship was found between the plaque index and salivary IgG against C. albicans. It showed a relationship between the oral hygiene index and the salivary IgA immune response against A. actinomycetemcomitans (p=0.008) and C.albicans (p=0.031). There was a relationship between the papillary bleeding index and salivary IgA against A. actinomycetemcomitans (p=0.003), F.nucleatum (p=0.002) and C.albicans (p=0.008). The A.actinomycetemcomitans antigen, the salivary IgA and IgG against F.nucleatum and C.albicans antigens can be biomarkers for periodontitis severity.