ABSTRAK

HUBUNGAN ANTARA TOTAL PROTEIN DAN KADAR KALSIUM SALIVA DENGAN KARIES GIGI SULUNG PADA ANAK *STUNTING* DAN *NON-STUNTING*

(Penelitian *Cross-Sectional* di Kecamatan Cilongok Kabupaten Banyumas)

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Stunting merupakan kondisi terganggunya pertumbuhan dan perkembangan anak akibat kekurangan gizi dalam waktu cukup lama yang didasarkan pada indeks tinggi badan menurut umur (TB/U). Anak *stunting* memiliki risiko tinggi mengalami karies gigi. Karies gigi pada anak *stunting* disebabkan oleh perubahan komposisi saliva, seperti total protein dan kalsium yang merupakan substansi organik dan anorganik pada saliva. Penelitian bertujuan untuk mengetahui perbedaan dan hubungan antara total protein dan kadar kalsium saliva dengan karies gigi sulung pada anak *stunting* dan *non-stunting* di Kecamatan Cilongok Kabupaten Banyumas. Penelitian *cross-sectional* dilakukan pada 30 anak *stunting* dan 30 anak *non-stunting* usia 3-5 tahun di Desa Sokawera. Total protein saliva diukur dengan metode *BCA Protein Assay*, kadar kalsium saliva diukur dengan metode AAS, dan karies gigi sulung dinilai dengan indeks dmf-t. Analisis statistik dilakukan dengan uji *Independent T* dan uji korelasi bivariat *Pearson.* Rerata total protein saliva anak *stunting* adalah 1,424 µg/µl (lebih tinggi dari anak normal); rerata kadar kalsium saliva adalah 8,513 ppm (lebih rendah dari anak normal), dan rerata karies gigi sulung yaitu 9,37 (kategori sangat tinggi). Terdapat perbedaan signifikan pada total protein, kadar kalsium saliva, dan karies gigi sulung antara anak *stunting* dan *non-stunting*, namun tidak terdapat hubungan antara total protein dan kadar kalsium saliva terhadap karies gigi sulung pada anak *stunting* dan *non-stunting*. Temuan ini menekankan perlunya peningkatan upaya pencegahan *stunting* dan manifestasinya pada rongga mulut.

Kata Kunci : Kadar kalsium saliva, Karies gigi sulung, *Stunting*, Total protein saliva

ABSTRACT

CORRELATIONS BETWEEN SALIVARY TOTAL PROTEIN AND CALCIUM WITH PRIMARY TEETH CARIES IN STUNTING AND NON-STUNTING CHILDREN

(Cross-Sectional Research in Cilongok District Banyumas Regency)

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Stunting is a condition where a child's growth and development are impaired due to long-term malnutrition which manifested on the height-for-age index (HAZ). Stunting children are at high risk of dental caries. Dental caries in stunting children are caused by changes in saliva composition such as salivary total protein and calcium. This study aimed to determine the differences and correlations between salivary total protein and calcium with primary tooth caries in stunting and non-stunting children in Cilongok District Banyumas Regency. A cross-sectional study was conducted on 30 stunting and 30 non-stunting children aged 3-5 years in Sokawera Village. Salivary total protein were measured using BCA Protein Assay method, salivary calcium were measured using AAS method, and primary tooth caries were assessed using the dmf-t index. Statistical analysis was performed using Independent T-Test and Pearson's bivariate correlation test. The mean of salivary total protein in stunting children was 1,424 µg/µl (higher than normal children); the mean of salivary calcium was 8,513 ppm (lower than normal children), and the mean of dmf-t index was 9.37 (very high category). There was significant differences in salivary total protein, calcium, and primary tooth caries between stunting and non-stunting children, also there was no correlations between salivary total protein and calcium with primary tooth caries in stunting and non-stunting children. These findings emphasize the need to increase preventive efforts against stunting and its manifestation in the oral cavity.

Keywords: *Primary tooth caries, Salivary calcium, Salivary total protein, Stunting*