

INTISARI

Stunting dan karies gigi merupakan dua masalah kesehatan utama pada anak usia prasekolah yang dapat saling memperburuk melalui gangguan nutrisi dan perubahan komposisi saliva. *Secretary Immunoglobulin A (sIgA)* saliva berperan penting dalam pertahanan imun mukosa rongga mulut. Penelitian ini bertujuan mengetahui perbedaan kadar relatif *sIgA* saliva antara anak stunting berkaries dentin dan anak nonstunting bebas karies usia 3–5 tahun di Kapanewon Imogiri, Bantul.

Penelitian dengan pendekatan *cross sectional* ini melibatkan enam anak yang dipilih secara *purposive* dan dibagi menjadi dua kelompok, yaitu tiga anak *stunting* berkaries dentin dan tiga anak *nonstunting* bebas karies. Status *stunting* diperoleh dari data sekunder *Z-score* TB/U di Puskesmas Imogiri II, sedangkan status karies ditentukan dengan indeks *dmf-t* dan skor *ICDAS* 4–6. Saliva *unstimulated* dikumpulkan pada pagi hari, kemudian kadar relatif *sIgA* dianalisis menggunakan metode *Liquid Chromatography–High Resolution Mass Spectrometry (LC-HRMS)*. Data diuji normalitasnya dengan *Shapiro–Wilk*, uji homogenitas dengan *Lavene’s Test* dan dianalisis menggunakan uji *Independent T-test* dengan tingkat signifikansi $p < 0,05$.

Hasil penelitian menunjukkan kadar relatif *sIgA* saliva secara deskriptif lebih tinggi pada anak *stunting* berkaries dentin dibandingkan anak *nonstunting* bebas karies, namun perbedaan tersebut tidak bermakna secara statistik ($p = 0,382$). Dapat disimpulkan bahwa tidak terdapat perbedaan signifikan kadar relatif *sIgA* saliva antara kedua kelompok, meskipun terdapat kecenderungan peningkatan kadar *sIgA* pada anak *stunting* berkaries dentin yang merupakan cerminan respon imun mukosa kompensatorik terhadap infeksi kariogenik.

Kata kunci: Saliva, *secretory immunoglobulin A*, *stunting*, karies dentin, anak usia 3-5 tahun, *LC-HRMS*.

ABSTRACT

Stunting and dental caries are two major health problems in preschool children that may exacerbate each other through nutritional impairment and changes in salivary composition. Salivary secretory immunoglobulin A (sIgA) plays an important role in oral mucosal immune defense. This study aimed to determine differences in relative salivary sIgA levels between stunted children with dentin caries and non-stunted caries-free children aged 3–5 years in Kapanewon Imogiri, Bantul.

This cross-sectional study included six children selected through purposive sampling and divided into two groups: three stunted children with dentin caries and three non-stunted caries-free children. Stunting status was obtained from secondary height-for-age Z-score (HAZ) data from Imogiri II Primary Health Center, while caries status was assessed using the dmf-t index and ICDAS scores 4–6. Unstimulated saliva was collected in the morning, and relative salivary sIgA levels were analyzed using Liquid Chromatography–High Resolution Mass Spectrometry (LC-HRMS). Data were tested for normality using the Shapiro–Wilk test, for homogeneity of variance using Levene’s test, and analyzed using an independent-samples t-test with a significance level of $p < 0.05$.

The results showed that relative salivary sIgA levels were descriptively higher in stunted children with dentin caries than in non-stunted caries-free children; however, the difference was not statistically significant ($p = 0.382$). In conclusion, there was no significant difference in relative salivary sIgA levels between the two groups, although a trend toward higher sIgA levels was observed in stunted children with dentin caries, which may reflect a compensatory mucosal immune response to cariogenic infection.

Keywords: Saliva, secretory immunoglobulin A, stunting, dentin caries, children aged 3–5 years, LC-HRMS.