

Kuantitas antigen streptococcus mutans serotype e dan candida albicans pada dorsal lidah anak early childhood caries dan caries free (Dihubungkan dengan laju alir saliva) = Quantity of streptococcus mutans serotype e and candida albicans antigens in dorsal tongue of early childhood caries free (Correlation with salivary flow rate)

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Abstrak

Latar Belakang: Early childhood caries (ECC) merupakan penyakit kronik infeksius yang sering terjadi pada anak usia prasekolah, ditandai dengan adanya satu atau lebih gigi yang rusak atau hilang atau ditambal akibat karies. ECC disebabkan oleh mikroorganisme kariogenik seperti *S. mutans* serotype e dan *Candida albicans*. Faktor laju alir saliva pada dorsal lidah dapat memengaruhi perkembangan ECC. Tujuan: Menganalisis kuantitas antigen *S. mutans* serotype e dan antigen *Candida albicans* yang diisolasi dari dorsal lidah serta kaitannya dengan laju alir saliva anak ECC dan caries free. Metode: *S. mutans* serotype e dan *Candida albicans* dari dorsal lidah sampel ECC dan caries free diuji menggunakan indirect ELISA untuk memperoleh antigen dan dibaca dengan panjang gelombang 450 nm, kemudian nilai optical density kedua antigen tersebut dikorelasikan dengan laju alir saliva anak ECC dan caries free. Hasil: Tidak terdapat perbedaan ($p>0,05$) kuantitas antigen *S. mutans* serotype e dan *Candida albicans* pada anak ECC dan caries free. Terdapat kecenderungan hubungan positif antara kuantitas antigen *S. mutans* serotype e dan *Candida albicans* pada anak ECC dan caries free. Kuantitas antigen *S. mutans* serotype e dan *Candida albicans* paling tinggi ditemukan pada laju alir saliva normal anak ECC. Kesimpulan: Kuantitas antigen *Streptococcus mutans* serotype e lebih banyak ditemukan pada dorsal lidah anak ECC dibandingkan dengan antigen *Candida albicans*. Pada laju alir saliva normal anak ECC dan caries free terjadi peningkatan kuantitas antigen *S. mutans* serotype e dan *Candida albicans*.

.....Background: Early childhood caries (ECC) is a chronic infectious disease that often occurs in preschool children, characterized by the presence of one or more teeth that are damaged or missing or restored due to caries. ECC is caused by cariogenic microorganisms such as *S. mutans* serotype e and *Candida albicans*. Salivary flow rate in the dorsal tongue can influence the development of ECC. Objective: To analyze the quantities of *S. mutans* serotype e and *Candida albicans* antigens isolated from the dorsal tongue and their relation to the salivary flow rate in ECC and caries free children. Method: *S. mutans* serotype e and *Candida albicans* from the dorsal tongue of children with ECC and caries free children were tested using indirect ELISA to obtain the antigens and they were being read with wavelengths of 450 nm, then the optical density values of the two antigens were correlated with the salivary flow rate of ECC and caries free children. Result: There was no significance ($p> 0.05$) quantity of *S. mutans* serotype e and *Candida albicans* antigens in ECC and caries free. There is a tendency for a positive correlation between quantity of *S. mutans* serotype e and *Candida albicans* antigens in ECC and caries free children. The highest quantity of *S. mutans* serotype e and *Candida albicans* antigens was found in the normal salivary flow rate of ECC children. Conclusion: Quantity of *Streptococcus mutans* serotype e antigens were higher than *Candida albicans* in the dorsal tongue of ECC children. At the normal salivary flow rate of ECC and caries free children, there was an increase quantity of *S. mutans* serotype e and *Candida albicans* antigens.