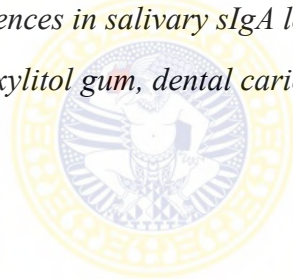


DIFFERENCE OF CHILDREN'S SALIVARY sIgA LEVEL IN CHEWING  
PROBIOTIC TABLETS (*Lactobacillus reuteri*) AND XYLITOL GUM

## ABSTRACT

**Background.** Probiotics and xylitol gum are prevention method to reduce dental caries. Some literature suggests that probiotics have the ability to increase levels of sIgA in saliva as a barrier against pathogenic bacteria such as *Streptococcus mutans*. Xylitol has the ability to increase the secretion of saliva and reduce the risk of dental caries by disturbing metabolism of *S.mutans*. **Purpose.** The purpose of this study was to explain the difference of children's salivary sIgA levels after chewing probiotic tablet (*Lactobacillus reuteri*) and xylitol gum. **Method.** This research was a clinical experimental with pre and post test with control group design. Twenty one childrens age divided into 3 groups, chewing probiotic tablets gorup, chewing xylitol group and control group. Saliva was collected before and 2 weeks after. SIgA levels were measured using ELISA. **Results.** There's no difference of sIgA level after chewing probiotic tablets (*L.reuteri*) and xylitol gum. However, increased levels of salivary sIgA were shown but not significant after chewing probiotic tablets and xylitol gum. **Conclusion.** The consumption of probiotics tablet (*Lactobacillus reuteri*) and xylitol gum did not show differences in salivary sIgA levels in children.

**Keywords:** sIgA levels, probiotics, xylitol gum, dental caries.



PERBEDAAN KADAR sIgA SALIVA ANAK PADA PENGUNYAHAN TABLET PROBIOTIK (*Lactobacillus reuteri*) DAN PERMEN KARET XYLITOL

## ABSTRAK

**Latar Belakang.** Probiotik dan xylitol merupakan salah satu metode pencegahan karies gigi. Beberapa literatur menunjukkan bahwa probiotik memiliki kemampuan untuk meningkatkan kadar sIgA dalam saliva sebagai upaya perlindungan mukosa oral terhadap bakteri patogen seperti *S. mutans*. Xylitol mempunyai kemampuan untuk meningkatkan sekresi saliva sehingga dapat mengurangi resiko karies gigi dengan mengganggu metabolisme *S. mutans*. **Tujuan.** Tujuan dari penelitian ini ialah untuk menjelaskan perbedaan kadar sIgA saliva anak setelah pengunyahan tablet kunyah probiotik (*Lactobacillus reuteri*) dan xylitol. **Metode.** Jenis penelitian ini adalah eksperimental klinis dengan *pre dan post test with control group design*. Sampel sebanyak 21 anak yang terbagi menjadi 3 perlakuan, pengunyahan tablet kunyah probiotik, pengunyahan xylitol dan kontrol. Pengambilan saliva dilakukan sebelum dan 2 minggu sesudah diberi perlakuan. Kadar sIgA diukur dengan menggunakan ELISA. **Hasil.** Tidak terdapat perbedaan kadar sIgA saliva setelah pengunyahan tablet probiotik dan xylitol. Akan tetapi terjadi peningkatan kadar sIgA saliva setelah pengunyahan tablet kunyah probiotik dan xylitol, namun tidak signifikan. **Kesimpulan.** Konsumsi tablet probiotik (*Lactobacillus reuteri*) dan permen karet xylitol tidak menunjukkan perbedaan kadar sIgA pada saliva anak.

**Kata kunci :** kadar sIgA, probiotik, xylitol, karies gigi.

