

Pengaruh mengkonsumsi permen yang mengandung asesulfam-K (sugar free) atau sukrose terhadap jumlah koloni bakteri streptococcus mutans pada saliva

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20435479&lokasi=lokal>

Abstrak

The purpose of the present study was to study the effect of consumed candy which contains acesulfame-K (sugar free) or sucrose on the number of Streptococcus mutans colonies in saliva. Fifty volunteers that fulfilled the sampling criteria were randomly divided into two groups of equal size. The first group was instructed to consume candy containing acesulfame-K and the second group consumed candy containing sucrose. Before and after periods of 7, 14, 21 and 28 days, saliva of the volunteers was collected in sterile petri dishes, cultured in nutrient agar media and incubated for 24 hours at 37°C. The number of S. mutans colonies was counted with a colony counter (CFU/ml). The data was statistically analyzed using Kruskal-Wallis and Mann-Whitney test (a 95%). The results showed that in the first group, the average number of S. mutans colonies decreased after consuming candy containing acesulfame-K, although statistical analysis did not show significant difference ($p>0.05$). However, there was a significant difference ($p<0.05$) in the number of S. mutans colonies before and after consuming candy containing sucrose, the average number of S. mutans colonies increased significantly ($p<0.05$). There was also significant difference ($p<0.05$) between before and after consuming sucrose candy for 21 and 28 days. Therefore the present results suggest that consuming candies containing acesulfame-K (sugar free) is useful to reduce the number of S. mutans colonies in saliva.