Abstract

Introduction: The children presented dental erosion and caries in early infancy that were associated to a rich diet in sugars, including the frequent ingestion of industrialized fruit juice (conditioned in boxes). The drink ingestion with pH lower than 5.5 can cause teeth erosion mainly if it is associated with frequent and prolonged teeth contact. The natural protection of teeth is the saliva through its buffering capacity. Objective: Measure the children salivary pH before and after the grape fruit juice (Del Valle Kids) ingestion. Material and methods: Thirtyone children with age between 6 and 12 years of both sexes participated in the study. The pH was measured with pH paper indicator. The salivary pH was measured before, immediately after, and at the 5, 10 and 15 min following the ingestion of the juice. Results: There was a significant difference of the pH at different time measurement. A reduction was observed immediately, 5 and 10 minutes after juice ingestion in relation to the basal one. Immediately after fruit ingestion the pH measurement of 16 children was above 5.5 while 15 children presented a pH equal or below of 5.5. At 5 minutes, 3 children still had a pH equal or below 5.5. At 10 minutes, all the children had pH above 5.5. Conclusion: It was concluded that, in children, immediately after the ingestion of fruit juice, there is a clinically significant pH decrease, which can reduce the salivary buffer capacity, but after 10 minutes this ingestion salivary pH reached values above 5.5, raising to next to the normal values at the time of 15 minutes.

Keywords

Fruit juices, erosion, dental caries, children, salivary pH.