"Longitudinal assessment of the caries development in individuals undergoing fixed orthodontic treatment"


Abstract
The aim of this study was to assess the caries development in individuals undergoing fixed orthodontic treatment along six months. Twenty two individuals (11-22 years) were assessed regarding caries, oral hygiene, sugar exposure, salivary flow rate (SFR), buffering capacity and pH of saliva at baseline, 1, 3 and 6 months after the orthodontic placement. Caries index was determined by Nyvad criteria. Buffering capacity decreased after 3 months (p<0.0001) and showed positive correlation with pH at baseline and after 1 month in patients who did not develop active caries lesions. SFR increased after 1 month (p=0.0283) After 6 months, 59.09% of participants developed caries (p<0.0001). Considering the high prevalence of dental caries found in these individuals and the detection of active caries lesions non-cavitated in the first 3 months after the adaptation of orthodontic appliances, the establishment of effective preventive measures even before the placement of the appliance, it is strongly suggested.

Key Words:
Dental Caries, Orthodontic Appliances, Saliva.