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Título	Plaque Fluoride Levels as a Predictor of Caries Development in Early Childhood with High Sugar Exposure - A Preliminary Study
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Resumo	<p>Objective: This longitudinal study aimed to investigate if the plaque fluoride (PF) concentration can predict the early childhood caries onset. Design: As part of a larger study, 188 preschoolers were clinically evaluated for early childhood caries diagnosis, at baseline and after 1-year follow-up. After that, the final sample comprised: 1. children who had already caries at baseline (decayed, missing or filled surfaces, as well as white chalky white spot lesions adjacent to gingival margins) and developed at least one more cavitation after one year (n=16), and 2. children who never had or developed any caries lesions, including active white spots lesions (n=15). Before the clinical examinations, dental plaque was collected. PF concentration was determined with an ion-specific electrode. A chart was used to estimate the mean daily sugar exposure. The results were statistically analyzed by Spearman correlation and logistic regression analyses (<math>\alpha=0.05</math>).</p> <p>Results: After one year, a positive significant correlation between caries development and liquid sucrose, total sugar and total sucrose consumption increments was found (<math>p&lt;0.05</math>). Moreover, the solid sugar, solid sucrose and total sugar exposure at baseline were positively correlated with the presence of dental plaque at follow-up (<math>p&lt;0.05</math>). To top it all, children with PF concentrations <math>\leq 0.1 \mu\text{g}/\text{mg}</math> at baseline were 10 times more likely to develop caries.</p> <p>Conclusion: In conclusion, this study demonstrated for the first time in vivo that low PF concentration is a predictor of caries development in primary teeth.</p>
Fomento	