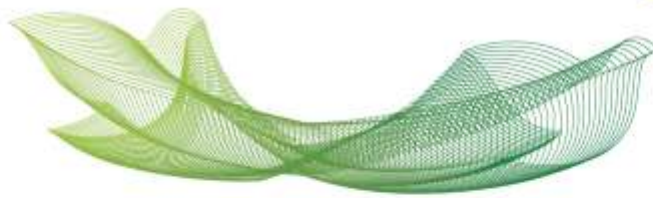




Tipo	Periódico
Título	Chloride and sodium ion concentrations in saliva and sweat as a method to diagnose cystic fibrosis
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Resumo	<p>Objective: Cystic fibrosis diagnosis is dependent on the chloride ion concentration in the sweat test (≥ 60 mEq/mL – recognized as the gold standard indicator for cystic fibrosis diagnosis). Moreover, the salivary glands express the CFTR protein in the same manner as sweat glands. Given this context, the objective was to verify the correlation of saliva chloride concentration and sweat chloride concentration, and between saliva sodium concentration and sweat sodium concentration, in patients with cystic fibrosis and healthy control subjects, as a tool for cystic fibrosis diagnosis.</p> <p>Methods: There were 160 subjects enrolled: 57/160 (35.70%) patients with cystic fibrosis and two known CFTR mutations and 103/160 (64.40%) healthy controls subjects. Saliva ion concentration was analyzed by ABL 835 Radiometer® equipment and, sweat chloride concentration and sweat sodium concentration, respectively, by manual titration using the mercurimetric procedure of Schales & Schales and flame photometry. Statistical analysis was performed by the chi-squared test, the Mann–Whitney test, and Spearman's correlation. Alpha = 0.05.</p> <p>Results: Patients with cystic fibrosis showed higher values of sweat chloride concentration, sweat sodium concentration, saliva chloride concentration, and saliva sodium concentration than healthy controls subjects (p-value < 0.001). The correlation between saliva chloride concentration and sweat chloride concentration showed a positive Spearman's Rho (correlation coefficient) = 0.475 (95% CI = 0.346 to 0.587). Also,</p>



	<p>the correlation between saliva sodium concentration and sweat sodium concentration showed a positive Spearman's Rho = 0.306 (95% CI = 0.158 to 0.440).</p> <p>Conclusions: Saliva chloride concentration and saliva sodium concentration are candidates to be used in cystic fibrosis diagnosis, mainly in cases where it is difficult to achieve the correct sweat amount, and/or CFTR mutation screening is difficult, and/or reference methods for sweat test are unavailable to implement or are not easily accessible by the general population.</p>
Fomento	