37TH Annual Meeting of the Continental European Division of the International Association for Dental Research

5-8 SEPTEMBER 2001, ROME, ITALY

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172 Blood Flow of Submandibular Gland: Role of AngiotensinII and NO.
B. Kerémi, J. Vág, CS. Hably, Á. Fazekas*
Semmelweis University, Department of Conservative Dentistry, Budapest, Ungary

173 The detection in human saliva of small peptides deriving from histatin-1 and histatin-3.
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Univ. Cattolica, Rome; CNR-Rome; Univ. "La Sapienza", Rome; Univ. di Cagliari

174 The concentration of defensin-1 in human saliva.
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Univ. di Cagliari; CNR-Rome; Univ."La Sapienza" and Univ.Cattolica - Rome

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176 Proteomic of human saliva by MALDI-TOF analysis: the detection of salivary protein components.
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*V. S. Trotskaya**
Belarusian State Medical University, Minsk, Republic of Belarus

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179 Relationship Between Dental Anxiety and Salivary Flow Rate.
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Dept. of Conservative Dentistry & Dept. of Biostatistics, Univ. of Istanbul, Istanbul, Turkey

180 Adhesion of fibrinogen studied by AFM force spectroscopy.
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181 Salivary polymorphonuclear neutrophils in babies and adults with or without teeth.
I. Bouchlariotou, A.-F. Baudson, N. Dourov, M. Brecx*

6.00 P.M. **OPENING CEREMONY**

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ELECTROLYTE AND PROTEIN SECRETION IN CYSTIC FIBROSIS SALIVA

F. Vernet[1*], J. Carrere[2], P. Tramini[1] C. Figarella[2] and M.D.Merten[2].
(1, Dental University of Montpellier, France. 2, G.R.G.E., Faculté de Médecine, Marseille, France.)

CF is characterized by a general defect in exocrine secretion and studies of salivary secretion can be used as a non-invasive model of examination of relatively large volumes of affected exocrine glands. Since the secretory leucocyte proteinase inhibitor (SLPI) is a specific protein marker of serous secretion implicated in salivary antibacterial, antiviral and antifungal defense, we measured its concentration as well as the electrolyte and protein contents of total saliva from normal and CF individuals under resting conditions and during masticatory stimulation.

Methods: total saliva from 22 control (4-15 years old) and 13 CF (3-17 years old) were collected under resting conditions for 5 min and after chewing a piece of PARAFILM® (used for saliva stimulation) for 2 min. SLPI was assayed by ELISA and electrolytes, total proteins, and amylase were measured with classical techniques.

Results: SLPI concentration was showed to be significantly decreased in CF saliva after stimulation compared to control subjects whereas no difference in amylase stimulated secretion was observed between normal and CF. As already reported in the literature, our data showed that chloride concentration was higher in CF saliva than in control under resting conditions. Nevertheless chloride concentration does not show any differences in stimulated conditions between control and CF saliva. Our results of sodium and calcium concentration are also similar to those reported elsewhere.

Statistical analysis: Differences between stimulated and resting values were assessed by Student's *t*- test.

Conclusion: Our results suggest a specific regulatory defect of SLPI secretion in CF salivary glands in vivo, likely to be directly related to the genetic defect. This observation rises the questions of mechanism of this specific secretory defect, the possible implication in oropharyngal microbal contamination and gives the possibility of using saliva as a model to investigate the effect of new drug therapies.

Supported by "Vaincre la Mucoviscidose".

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