

54th Annual Meeting, ICD European Section

Maastricht, the Netherlands

June 2010

Back to the Roots of Dental Health

Introduction

Walter van Driel, Chairman Scientific Committee

Caries prevention: the future and today

Prof. Dr. J.M. ten Cate

Saliva: a prerequisite for Oral Health

Prof. Dr. A. van Nieuw Amerongen

Coffee, Refreshments & Trade Exhibition

New salivary peptides antibiotics

Prof. Dr. A. van Nieuw Amerongen

Bringing public (dental) health to a public place, part I

Dr. W.H. van Palenstein Helderma

Bringing public (dental) health to a public place, part II

Introduction to the Open Forum

Prof. Dr. W.H. van Palenstein Helderma

Open Forum Discussion

Moderator: Walter van Driel

• Distant Learning Methods

FLAG-Committee Members of the European Section

• Current Dental Aid programs

Short presentations by ICD-Fellows

• Continuing Educational Programs ICD

Professor Phillip Dowell FICD

ABSTRACTS OF FEATURED PRESENTATIONS

Caries prevention: the future and today

Prof. Dr. J.M. ten Cate

The genomic era has revolutionized biomedical research with an important spin off to dental science. New tools and methodologies have become available to better understand and monitor the processes in the oral cavity. Innovative research has advanced our understanding of the pathogenesis of caries and the etiological factors in the dental plaque biofilm. This lecture will describe dental plaque from this new perspective and indicate how these advances might be used for individual caries risk analysis and to develop new caries preventive agents. Today, however, on a global scale many patients would benefit if only our current knowledge would be applied. For the majority of the world population availability and affordability are barriers to be tackled to maintain dental health and guarantee adequate dental care.

Caries prevention is still largely depending on protocols involving fluoride products, but, as will be presented, a rational use may further increase their effectiveness, both in high and low caries prevalence countries.

Saliva: a prerequisite for Oral Health

Prof. Dr. A. van Nieuw Amerongen

Saliva is a highly complex fluid that is essential to maintain all oral tissues healthy. That becomes rapidly evident when hypo-salivation occurs in patients after irradiation of patients with a head-neck Cancer. Within a few months a healthy dentition can be affected continuously. Mucosa and epithelium will become vulnerable to infections and inflammations. Apparently saliva has protective functions for both hard and soft oral tissues. By new techniques it was demonstrated that in whole saliva hundreds of proteins are present. The question is which proteins are highly essential for the prevention of dental decay and mucosal inflammation. Much attention has been paid to the protein composition and the physiological meaning of the single glandular saliva. The protective role of a number of salivary proteins has become clearer. Particularly the mucous proteins appear to be a prerequisite for oral health. Thereto, more insight will be given to these intriguing mucins. They protect dental surface against wear and the mucosa against infection and inflammation.

New salivary peptides antibiotics

Prof. Dr. A. van Nieuw Amerongen

Although the oral cavity contains a wealth of micro-organisms it is remarkable that under healthy conditions the pathological and non-pathological ones are in equilibrium. On the other hand, when under medical compromised conditions or by using some medication, this equilibrium can be disturbed resulting in e.g. outgrowth of the yeast *Candida albicans*.

In the last decade, by new innovative techniques, it was shown that in saliva a number of very small peptides are present with antimicrobial activity. Based on this discovery new ways were opened to develop artificial peptides based on salivary peptides having a strong antimicrobial activity. More remarkably, resistance against these peptides is hard to develop. In addition, a number of these peptides appears to be involved in wound healing and others in suppression of pain sensation. In other words, in the last decade the attention of much salivary research has been focused on these salivary peptides in the battle to prevent oral infections and inflammations.

Bringing public (dental) health to a public place

Dr. W.H. van Palenstein Helderman

A large part of the global population lacks adequate access to oral health services. Universal access to oral health care is a justifiable demand for a number of disparate but morally reasons. Both governments and professions have responsibilities to ensure that a decent level of oral health care is available for all. Market forces, scarcity of funding and lack of clarity who is responsible for ensuring that oral care is available seem to present insurmountable difficulties. Aid projects by dental volunteers, though laudable, are inadequate

to solve dental access problems. They cannot ensure a workforce needed to meet the demands of the underserved. Neither do they address systemic issues such as lack of dental insurance or the need to prioritize mass prevention. By nature, such efforts are provider-driven and not designed to match the needs of underserved populations. They do not empower patients, families or communities or provide ongoing care. The health problems of the global population are insurmountable in one step. Where to start to alleviate the suffering? In case of the children I will explain that it is possible to develop and carry out an essential health care package to which all children have access.