

Preventive strategies in geriatric dental medicine

The geriatric challenge for dental medicine has many facets; throughout the Western world, the demographic revolution is changing society, and with it, the daily practice of dentistry. First, there is an increasing number of elderly persons with a still-lengthening life expectancy. Second, the success of already implemented preventive strategies is becoming increasingly obvious. Slade et al³ stated that the prevalence of edentulism is already very low in high-income households in the US. It is projected to fall to 2.6% by 2050 and will be seen mostly in an older, economically deprived population. Last but not least, we will see a growing number of geriatric patients in need of care and a decreasing number of younger persons who can provide this care.

The elderly will retain their own teeth longer in life, which is per se a positive development. Elderly persons with a functional dentition, i.e. a shortened dental arch, demonstrate a higher oral-health-related quality of life, are at lower risk of developing protein-related malnutrition, and are socially more active than their edentulous peers. This is strikingly obvious late in life, when enjoying a meal in good company remains one of the few pleasures life has to offer.

On the other hand, retaining one's own teeth into old age comes at a price. The elderly require a high level of preventive oral hygiene measures. Age-related diseases and disabilities make it difficult to clean the teeth and dental prostheses. Leaving the house to see a dentist or a dental hygienist becomes a challenge! Oligosialia is frequent because of medications and atrophy of the salivary glands. Taste sensation fades, and a preference for sweet foodstuffs is seen in many of our aged patients. Therefore, we are seeing the return of caries – and more specifically root caries – in the elderly and geriatric population, but the use of high-fluoride toothpaste might provide some benefit.⁴

The active and often undisturbed biofilm on teeth, oral mucosa and dental prostheses also poses a considerable risk for developing aspiration pneumonia, especially in geriatric patients with dysphagia. Dysphagia has a reported prevalence of

up to 60% in residents of long-term-care facilities. A stringent oral hygiene regimen will lower the risk of developing aspiration pneumonia by reducing the intraoral bacterial count. The inflammatory burden of periodontal disease may furthermore comprise specific risks for diabetic patients and patients with dementia, and may negatively influence the overall aging process. Poor oral hygiene not only threatens general health through haematogenous spread, but of course also locally affects the oral tissues.

Maintaining and, if needed, improving oral hygiene are the main strategies of geriatric dental medicine. The goals of any preventive strategy in geriatric dental medicine should be: 1. establishing an infection-free oral cavity; 2. fostering quality of life factors related to oral health; 3. long-term prevention of oral infections; 4. using prostheses for maintaining or improving masticatory function; 5. ensuring acceptable oral aesthetic appearance.²

Unfortunately, we do not yet know how best to improve oral hygiene for a dependent and frail population. Attempts at sustained improvement in oral hygiene by educating caregivers in residential care facilities have yielded inconclusive results.¹ In the absence of effective measures to tackle the challenges of geriatric dental medicine, the medical, psychological, social and financial hardships are rapidly multiplying. Society, politics and the dental profession need to act quickly and decisively to protect our elderly from being overwhelmed by the burden of dental and oral disease. This goal can only be achieved through the development of evidence-based, realistic and cost-effective preventive strategies.

Prof. Dr. Martin Schimmel

Division of Gerodontology, School of Dental Medicine, University of Bern, Switzerland; Division of Gerodontology and Removable Prosthodontics, University Clinics of Dental Medicine, University of Geneva, Switzerland.
martin.schimmel@zmk.unibe.ch

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