Oral health and the aging population

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In 1900, 3.1 million people, or 4 percent of the population, were 65 years or older; by 2005, the number had increased to 34.3 million people, or 12.4 percent of the population, an increase of more than tenfold.[1] To evaluate a specific patient, the dentist must understand the cultural, psychological, educational, social, economic, dietary and chronologically specific experiences that may have influenced his or her life. Oral health and status are affected by similar factors, and they are the accumulation of a person's life experiences with dental care, as well as with caries, periodontal disease and iatrogenic disease.[2-4]

Geriatric dentistry includes, but is not limited to, the diagnosis, treatment and prevention of caries and periodontal disease, as well as oral mucosal diseases, head and neck pain, salivary dysfunction and impaired chewing, tasting and swallowing.[4] Many of these topics will be discussed in this supplement.

FUNCTIONAL DEFINITION OF OLDER ADULTS

In dentistry, a functional definition of an elderly adult is based on his or her ability to travel to seek services. This definition is more appropriate than a chronological one. We can categorize the aging population into three broad functional groups:[5]

- functionally independent older adults;
- frail older adults;
- functionally dependent older adults.

The majority of older adults (95 percent) live in the community; approximately 5 percent of these people are homebound and another 17 percent have a major limitation in mobility due to a chronic condition.[6] This leaves about 70 percent of the elderly population—or 23.2 million people older than 65 years—who are living in the community and are able to visit the dental office independently. These patients are the focus of this supplement.[6]

DENTAL CARE NEEDS

Elderly people in the past 50 years composed a relatively small proportion of the population; the majority of these people were edentulous and received dental care infrequently and then only when they could no longer ignore their unmet needs.[2,7] However, the rate of edentulism in the U.S. population declined from 20.3 percent in 1972 to 13.9 percent in 2001.[8] Therefore, it is no longer appropriate to equate geriatric dental care with denture care, because only 27 percent of people 65 years and older were edentulous in 2004, and care now must include complex restorative procedures, as well as esthetic dentistry and implants.[7-9]

In his article in this supplement, Stanford[10] points out that for many general dentists, the use of dental implants has become more common when replacing missing teeth. Retrofitting of complete lower dentures with two implants now is accepted as a viable treatment option for those who can afford it, and this type of care can improve a patient's quality of life.

The United States has become an aging industrialized society, with a decreasing caries rate in children and an increasing coronal and root caries rate in the aging population. Incidence data show that people 65 years and older have more caries than children younger than 14 years who live in an area with nonfluoridated water.[11,12] The percentage of teeth with decayed or filled root surfaces increases with each decade of adulthood, affecting more than one-half of all remaining teeth by age 75 years.[13] As people live longer and retain more natural teeth, the complexity of their treatment increases.[14] In his article, Bartlett[15] focuses on one of the more common problems in an aging dentition—tooth wear—and specifically, erosion of the dentition. He examines the cost and complexity of treating this significant acid-related problem.

Another persistent and significant problem for older adults is periodontal disease. As Boehm and Scannapieco[16] point out in their article, although the majority of older adults have attachment loss, only 15 percent of subjects in a study they cited had attachment loss of 8 millimeters or greater. Thus, the general dentist and dental hygienist can meet the periodontal treatment needs of the majority of older adults by carrying out simple scaling and cleaning procedures.

Older people are likely to develop several chronic diseases (for example, arthritis, diabetes, cardiovascular disease), which occur at increasing rates with increasing age and can be treated with an ever-

expanding variety of medications. These chronic diseases can affect a person's quality of life, especially the ability to eat, speak, taste and swallow; in addition, they can cause significant pain and discomfort. In their article in this supplement, Scully and Ettinger[17] present the 10 most common systemic diseases and explore their effect on the oral care of older adults. They examine each disease and describe the issues that dentists must consider when treating older adults who have these diseases.

Many systemic drugs prescribed for these chronic diseases can cause adverse effects to the oral mucosa, the most common being hyposalivation. Patients also may experience xerostomia, bleeding disorders of the tissues, lichenoid reactions, tissue overgrowth and/or hypersensitivity reactions.[18,19] The most common of these adverse effects is xerostomia, or dry mouth. In their article, Turner and Ship[20] describe the importance of saliva and the clinical findings related to xerostomia, as well as offer suggestions for treating this condition in the aging population.

According to Silverman,[21] in the United States, the three most common reasons for referrals by general dentists of older adults with oral mucosal lesions are suspected malignant lesions, inflammatory vesicular lesions and candidiasis. He examines these lesions in detail in his article in this supplement. The estimated incidence of oral and pharyngeal cancer in 2007 has been predicted to be approximately 34,360 new cases and 7,550 deaths.[22] The majority of these patients will be in the 55- to 74-year-old age group. Therefore, dentists must perform an annual oral examination of the soft and hard tissues of all patients older than 50 years as a routine preventive measure.

In the last article, MacEntee[23] explores the use of quality-of-life measures to assess the significance of the mouth and oral health for older adults. Good evidence exists that oral health and oral health care influence quality of life; however, at present, investigators do not seem to have a good way of quantifying it adequately.

CONCLUSION

It is apparent that the aging population is growing and that these older adults have more teeth and more oral problems than did previous cohorts. This makes treatment decisions more difficult and more complex. Oral health care providers will need to continue to educate themselves about the medical problems facing this population and how they influence oral health and oral care. Another problem is the relationship between the medications used to treat these diseases and their significant oral side effects. This supplement helps to clarify some of these issues. ■

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