

**Geriatric oral health - An emerging recent challenge**

<sup>1</sup>J. Bhuvaneshwarri. M.D.S., Professor, Department of Periodontics, Sree Balaji Dental College, Chennai.

**Corresponding Author:** J. Bhuvaneshwarri. M.D.S., Professor, Department of Periodontics, Sree Balaji Dental College, Chennai.

**Citation of this Article:** J. Bhuvaneshwarri, “Geriatric oral health - An emerging recent challenge”, IJDSIR- January - 2022, Vol. – 5, Issue - 1, P. No. 378 – 381.

**Copyright:** © 2022, J. Bhuvaneshwarri, et al. This is an open access journal and article distributed under the terms of the creative commons attribution noncommercial License. Which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

**Type of Publication:** Original Research Article

**Conflicts of Interest:** Nil

**Abstract**

Geriatric dentistry is the delivery of dental care to older adults involving diagnosis, prevention, management and treatment of problems associated with age related diseases.[1] The mouth is referred to as a mirror of overall health, reinforcing that oral health is an integral part of general health. In the elderly population poor oral health has been considered a risk factor for general health problems. Older adults are more susceptible to oral conditions or diseases due to an increase in chronic conditions and physical/mental disabilities. Thus, the elderly form a distinct group in terms of provision of care. The world’s population is currently ageing with the number and proportion of elderly people growing substantially. Between the years of 2000-2005 to 2010-2015 life expectancy at birth rose from 67.2 to 70.8 years.[2] By 2045-2050 it is projected to continue increase to 77 years. This increasing longevity can be majorly attributed to advances in modern medicine and medical technology.[3] As a result, the population of people aged 60 and over is growing faster than any other younger age group and it is expected to more than

double by 2050 globally.[2] This will have a profound effect on society’s ability to support the needs of this growing crowd including their dental needs.

Older people have become a major focus for the oral health industry. Due to the increasing number and proportion of elderly people, age related dental problems have become more common. This is largely due to success in dental treatment and prevention of gum disease and caries at a young age, thereby leading to people retaining more of their own natural teeth.[4] As they get older, the retained teeth are at risk of developing and accumulating oral diseases that are more extensive and severe.

**Keywords:** Geriatric Dentistry, Periodontitis, Fraility, Geriatric Management.

**Introduction**

There has been an increase globally in aging populations over the last few decades. The increase in life expectancy, decrease in births, and improvement of health services have contributed to an increase in older populations. Aging is also strongly associated with the development of chronic diseases and age-related health

conditions, which adversely affect health and quality of life in older people. Chronic conditions related to oral health also play a key role in the health of older populations.<sup>1,2,3</sup>

The elderly can be classified into many criteria. Classifying them allows for a more detailed and accurate analysis of the diversity within this age group and makes diagnosis and treatment planning more personalised. The following is a common classification of the elderly according to age group.<sup>[9]</sup>

- Young-old → 65-74
- Middle-old → 75-84
- Oldest-old → ≥ 85

The dental classification of ageing however is more useful if it is based on the patient's ability to seek dental care independently.

- **Frail elderly:** have chronic, debilitating, physical, medical and emotional problems who are unable to maintain independence without continued assistance from others. As a result, the majority of the frail elderly live in the community with support services.

- **Functionally dependent:** elderly have chronic, debilitating, physical and medical or emotional problems or any combination that compromises their capacity to the extent where they are unable to maintain independence and as a result are homebound or institutionalized.

Periodontal disease is one of the most prevalent chronic diseases globally and becomes more prevalent with increasing age. Proper oral health care is essential in older populations to maintain their quality of life, functional performance, and overall systemic health. In addition to the traditional focus on single (or related) chronic diseases, there is now a greater recognition that multisystem conditions such as frailty play an important role in the health of older populations. Frailty is defined

as “a clinically recognizable state of increased vulnerability, resulting from aging-associated decline in reserve and function across multiple physiologic systems such that the ability to cope with daily or acute stressors is compromised”.

### **Frailty and periodontal disease**

Frailty is a common clinical syndrome or condition in older adults that increases the risk of adverse health outcomes, including falls, disability, hospitalization, mortality, and long-term care. Similar to chronic diseases such as periodontal disease, the prevalence of frailty increases dramatically with increasing age. There has been substantial research interest over the years in exploring the associations of periodontal disease with chronic diseases, particularly cardiovascular disease, type 2 diabetes, and Alzheimer's disease. More recently, there has also been increasing interest in understanding a similar association of periodontal disease with frailty. Rates of both frailty and periodontal disease are higher in older populations.<sup>8</sup> Comorbidities, poor physical functioning, and a limited ability to self-care in frail older people have been implicated as underlying the association between frailty and dental diseases such as periodontal disease. In addition, both frailty and periodontal disease also have strong associations with inflammation and other age-related pathophysiologic changes that may similarly underlie their development and progression. Frailty has been described as “a medical syndrome with multiple causes and contributors that is characterized by diminished strength, endurance, and reduced physiologic function that increases an individual's vulnerability for developing increased dependency and/or death”.

Research has indicated that there is an association between oral health problems and frailty in older people. It is evident that both frailty and periodontal disease are

common chronic conditions in older populations and share several risk factors. Both frailty and periodontal disease are associated with increased chronic systemic disease and both adversely influence quality of life by affecting food habits, physical activity, and functional independence. This section summarizes results from previous studies on the associations between periodontal disease and frailty. The relationship between frailty and oral health is likely to be bidirectional. Frail older people, particularly those living in long-term care settings, have very high levels of dental diseases, including periodontal disease. It is possible that frailty influences and increases the risk of oral diseases in older people. Systemic conditions.<sup>4,5,6</sup>

### **Conclusion**

The diagnostic criteria used to diagnose periodontitis in younger adults may not be fully applicable in older individuals. The prevalence of periodontitis may therefore be incorrectly perceived. Poor diet may explain poor gingival conditions. Dietary counseling and improved diet, with decrease in sugar intake, may improve gingival conditions. The evidence that routine periodontal therapies are effective in the treatment of geriatric patients is limited. The increase in longevity, and the increase in the number of retained teeth, will result in an unknown increase of people with periodontal disease and treatment needs. Having untreated periodontitis at the time of retirement may shorten life expectancy.

People are now living longer and retaining their teeth for longer due to the preventive focused approach to dentistry. Although the rates of edentulism are rapidly declining, this is resulting in the number of natural teeth retained in the dentition. The impact of this is especially apparent in the residential care setting, as Personal Care Assistant staff are often time poor as a high resident to

PCA ratio, oral care is often not adequately attended too or not at all. Residential care facilities will continue to encounter residents retaining their own natural teeth as the population is growing and living for longer periods so an oral health intervention will be required to combat this area of care that is severely lacking in many facilities. Utilising Oral Health Therapists in this sector would provide some assistance in closing the gap.<sup>7,8</sup>

### **Reference**

1. Hellyer, P. Frailty and oral health. *Br Dent J* 227, 803 (2019).
2. Persson GR. Dental geriatrics and periodontitis. *Periodontol* 2000. 2017 Jun;74(1):102-115.
3. Mojon P, Rentsch A, Budtz-Jørgensen E. Relationship between prosthodontic status, caries, and periodontal disease in a geriatric population. *International Journal of Prosthodontics*. 1995 Nov 1;8(6).
4. Weyant RJ, Newman AB, Kritchevsky SB, Bretz WA, Corby PM, Ren D, Weissfeld L, Rubin SM, Harris T. Periodontal disease and weight loss in older adults. *Journal of the American Geriatrics Society*. 2004 Apr;52(4):547-53.
5. Greenwell H, Bissada NF. Factors influencing periodontal therapy for the geriatric patient. *Dental clinics of North America*. 1989 Jan 1;33(1):91-100.
6. Scutariu MM, Ciupilan C, Salceanu M, Melian A, Forna DA, Sioustis I, Ciurcanu O. Incidence of dento-periodontal pathology in geriatric patients. *Romanian journal of oral rehabilitation*. 2018 Jan 1;10(1):128-32.
7. Rivas-Tumanyan S, Campos M, Zevallos JC, Joshi Pura KJ. Periodontal disease, hypertension, and blood pressure among older adults in Puerto Rico. *Journal of periodontology*. 2013 Feb;84(2):203-11.
8. Locker D, Leake JL. Risk indicators and risk markers for periodontal disease experience in older

adults living independently in Ontario, Canada. Journal  
of dental research. 1993 Jan;72(1):9-17.