

Geriatric Dentistry- an Overview

Manjusha S Pardhan¹, Snehal S Sonarkar^{2,*}, Pratima R Shenoi³,
Varsha Uttarwar⁴, Vidya Mokhade⁵

^{1,4,5}Lecturer, ²Senior Lecturer, ³Professor & HOD, Dept. of Conservative Dentistry and Endodontics
VSPM's Dental College and Research Center, Nagpur, Maharashtra. 440019

***Corresponding Author**

E-mail: snehalsonarkar@gmail.com

Abstract

Dental care for geriatric patients has been increasing day by day. The treatment and diagnosis of geriatric patient is challenging, as these patient have both systemic and oral problem. There are systemic diseases which have oral manifestations and if patient doesn't know about the disease, it can be diagnosed or suspected by the clinician after examination and investigation. This article describes the systemic and oral changes in elderly patient.

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Introduction

The life expectation of individuals has been improved with increase in number of geriatric people. It regarded as a normal, inevitable biological phenomenon. The study of the physical and psychological changes which is incident to old age is called gerontology and care of aged is called clinical gerontology or geriatrics.(1) Geriatric dentistry or Gerodontics can also be defined as the delivery of dental care to older adults involving the diagnosis, prevention and treatment of problems associated with normal ageing and age-related diseases as part of an interdisciplinary team with other health care professionals.(2) Government of India classified, the people who are 60 years of age and above as elderly whereas in developed countries the age is 65 years. In world, approximately 600 million people are 60 years and above and is considered to be doubled by 2025. However, India comprises of about 75 million aged population. Gupta and Ghai stated that the population in India by 2030 having 60+ age will increase to 198 million.(3) Further in 1990s, the revolutionary research outcome has showed a link between oral and systemic health.(4) In elderly, the status of oral health reflects the total outcomes of oral health behavior, diseases and treatments undertaken. Currently, the dental needs of elderly patients have increased. Thus, for managing elderly patient clinician requires knowledge and understanding of both dental and medical aspects of ageing. Nevertheless, other factors such as ambulation,

independent living, socialization and sensory function also play an important role.

Systemic Diseases and its dental relation

Most common diseases seen in elderly patients are cardiovascular diseases, diabetes, respiratory diseases, blood dyscrasias and other systemic diseases which have relation with dental manifestations. Cardiovascular diseases and uncontrolled diabetes may exacerbate periodontal inflammation. Periodontal disease is likely to develop as a result of depressed immune system and is proposed as the 6th complication of diabetes.(4)

Poor health of elderly population has been considered a risk factor for general health. Older individuals are more susceptible to oral diseases due to increase in chronic conditions like diabetes, heart diseases, respiratory problems, nutritional deficiencies and physical & mental disabilities. Considering this diseases elderly population forms a distinct group in terms of provision for dental care.

Oral manifestations generally describes about overall health or the general of patient. According to WHO 1982, Oral health is a standard of the oral and related tissues which an individual to eat, speak and socialize without active disease, discomfort or embarrassment and which contributes to general well-being.(4) It has been concluded that the oral health status of elderly people was found to be poor with higher incidence of tooth loss.(5) They are particularly at risk of root caries, which follows as a consequence of periodontitis. It has also been found that the prevalence of oral mucosal lesions was higher in older patients than in younger patients.(6)

Cardiovascular diseases (CVD) and periodontitis has interrelationship because of common bacteria associated with its pathogenesis. Periodontal inflammation leads to bacteremia caused by common oral pathogens like Porphyromonas Gingivalis. This microorganism have been isolated from CVD like coronary and carotid atheromas. Therefore, CVD and

Periodontitis are interrelated and commonly seen in geriatric patients.(7)

Infective endocarditis, other common disease found in elderly patients has association with periodontitis. The bacteria like viridians streptococci normally found in oral cavity, whereas the bacteria found in dental plaque like *Actinobacillus actinomyces-temcomitans*, *Eikenella Corrodens*, *Fusobacterium Nucleatum* and *Bacteriodes Forsythus* have been isolated from the blood sample of Infective endocarditis patients.(8)

Respiratory infections are usually caused by oropharyngeal and periodontal microorganism and bacteria. The main cause of respiratory infections and bacterial pneumonia in adults is aspiration of oropharyngeal bacteria. This micro flora habitats in inadequate oral hygiene resulting in formation of dental plaque further serving as a reservoir for respiratory pathogens.(9)

The other common disease Rheumatoid arthritis (RA) is seen in elderly patients. This RA has similar characteristic of periodontitis as there is destruction of hard and soft tissues as a result of inflammatory response. However, the interrelationship as well as association between RA and periodontitis has not been proved.(9)

Diabetes Mellitus (DM) the other most common disease seen adult and elderly individuals in 21st century. It has been proved and found that the patients suffering from Type 1 and Type 2 DM have distinguished dental manifestations such as loss of periodontal attachment, gingival and periodontal abscess and early loss of teeth.(10)

Dental changes in Elder patients

Geriatric patients are prone wasting diseases of teeth such as attrition, abrasion, abfraction and erosion. This is because of the fact that the teeth are functional for a long period of time. Periodontal inflammation, loss of attachment, missing teeth, edentulism, ill fitting dentures, oral ulcerations, xerostomias and oral carcinomas are some of the age related changes. Further, root caries is other most common caries found in elderly patients.(11)

Habits and Oral implications

Elderly patient have habits such as smoking, tobacco pan and beetle nut chewing which leads to formation of precancerous or cancerous lesions. Thus, combining both systemic and oral problems the immunity declines in elderly people. Elderly people in rural areas have habit of tobacco and betel nut chewing as compared to urban population necessitating the need of integrating primary health care with oral care in rural population.(12) Further, financial constraints and lack of family support or of transportation facilities affect access to dental services in later life. Thus the untreated oral cavity has its deleterious effects on comfort, esthetics, speech, mastication and consequently, on quality of life in old age.

Goal of Geriatric dentistry

1. To maintain oral health of individuals.
2. To maintain ideal health and function of masticatory system by establishing adequate preventive measures.
3. In diseased patients maintaining oral and general health.

Objectives of Geriatric dentistry

1. To recognize and relieve difficulties of elderly people.(13)
2. Restoration and preservation of function for maintaining normal life in elderly patients.(14)

Preventive measures for dental diseases

Oral health care provider should educate patients regarding oral diseases and its prevention. The five golden rules for preventive dental diseases in geriatric patients are given below:-

1. A well balanced diet is the key to oral health and a body that is strong and free from diseases because nutrients available systemically will impact overall development, growth and maintenance of tooth structure, connective tissue, alveolar bone and oral mucosa
2. Don't eat sweet or sticky foods between meals because high sugar diet have often been associated with caries so such intake should be restricted.
3. Regular brushing after every meals or at least every meal at night which helps to keep teeth free of plaque and fight decay.
4. Choose right toothbrush that fits comfortably in hand and is easy to control. Massage your gums with your fingers after brushing and gently brush your tongue too.
5. Visit your dentist regularly.

Conclusion

General and oral health is a fundamental right of human being. Oral health of patient determines the general health, and general health determines happiness in life that brings smile. Good health is achieved by assimilation of healthy diet and this further helps in maintaining health of oral hard (teeth) and soft tissues.

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