Review Article

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GERIATRIC ORAL HEALTH CARE: A REVIEW

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ABSTRACT:

Elderly adults are described as people who have lost some of their independence, but who need help of the other people to live in the community. As a result of the advances made in medicine and public health measures in the last half of the 20th century, there is a substantial increase in the life span of man. In the modern world the trends of disease shift from the infective to the chronic disease. Globally, poor oral health among older people has been particularly evident in high levels of tooth loss and dental caries. Certain strategies should be adopted for improving oral health of the elderly, including the management and maintenance of oral conditions, which are necessary for re-establishing effective masticatory function. Oral health is often neglected in the elderly and oral diseases associated with aging are complex, adversely affecting the quality of life. Older people can be a valuable resource; they can contribute to society within their families, communities, and national economies as either a formal or an informal part of the through volunteer work. Demonstration projects on oral disease control, health promotion and quality of life improvement should be initiated and evaluated systematically.

Keywords: Aging, Dental Caries, Elderly people, Oral health.

INTRODUCTION:

Aging is a continuous process from birth to death, which encompasses physical, social, psychological, spiritual changes and means the biological changes that occur over time in an individual that are associated with a gradual decline in function and an increasing risk of death in the near future. As a result of the advances made in medicine and public health measures in the last half of the 20th century, there is a substantial increase in the life span of man. Elders above 65 years (old age) have health problems as a result of aging process, which calls for special consideration.[1]

Elderly adults are described as people who have lost some of their independence, but who need help of the other people to live in the community.[2] Life span in the world has increased dramatically because of the advancement of our modern medicine science, technology and better environmental conditions and it

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becomes the target of health care providers to render professional service not only to substantially improve the longevity but also make the later part of a person's life more productive and enjoyable.[3]

Elderly people have their oral health and nutritional status is at risk of deterioration and in many ways, the two factors are associated with each other. Difficulties in chewing different types of food due to the edentulousness, lead to those foods being excluded from the diet.[4] There are today 7 million people over the age of 65 years and above. The number will be doubled by 2025. [5]

In India, the size of the elderly population i.e., persons with age of 60 and above (as in India, it forms the basis for classification of the elderly) is fast-growing and life expectancy of Indian population is increased to 62.36 years for males and 63.39 years for females compared with 23.8 years for both in 1901.[6]

In the modern world the trends of disease shift from the infective to the chronic disease. As the population attains an increase in longevity, chronic diseases play a significant role and dental diseases are the most prevalent chronic condition. Therefore dentist can play an essential role in maintaining and improving dental health status of the aged peoples.[7,8]

40% of the elderly live below the poverty line and 73% are illiterate. Ninety percent of the elderly have no social security and the dependency ratio is 12.26. Incidence of oral cancer, which is considered as an old-age disease, is highest in India. 13.5% of all body cancers are oral cancers. Preventive dental care is almost non-existent to the rural masses and is very limited in urban areas.[9,10]

By now, one third of the world's elderly population is living in the developing countries and 1 out of 12 persons in the developing countries are over 65. The 20th century witnessed remarkable population ageing with regard to human longevity worldwide and the 21st century is set to carry forward the gains in longevity further, both in the developing and the developed world.[11]

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. On the other hand, older adults are more susceptible to oral conditions or diseases due to an increase in chronic conditions and physical/mental disabilities. Thus, old people form a distinct group in terms of provision of care.[11] This review is to highlight the oral health problems & needs of older people.

Oral health problems in older people:

There are wide range of the oral health problems exist in the elderly people particularly these are high level of tooth loss, denture related conditions dental caries experience and high prevalence

rates of periodontal disease, xerostomia and osteoporosis.

Tooth loss:

Tooth loss in elderly population, was reported by several studies in the past, showing a strong association with mortality.[12] Several factors such as bleeding, deep probing, clinical attachment level increase and bone loss, eventually lead to tooth loss.[13] Much like the fact that decline in activities of daily living is a final common pathway for a broad range of decrements in general health, tooth loss constitutes a final common pathway for most dental diseases and conditions. This tooth loss can lead to substantial impacts on quality of life.[14,15,16]

Anand *et al* [17] reported on extraction trends in India, caries was observed as the main etiologic factor for extraction at 44%, periodontal breakdown at 33%, Orthodontic reasons at 11%, impactions and prosthodontics purposes were at 2%. Edentulousness is shown to be an independent risk factor for weight loss and in addition to the problem with chewing, old-age people may have social handicaps related to communication. Epidemiological studies show that persons of low social class or income and individuals with little or no education are more likely to be edentulous than persons of high social class and high levels of income and education.

Denture related conditions:

Initially the patients face the problem of excessive salivation in first 12 to 24 hours of wearing dentures as the brain misinterprets it to be food. New dentures can also be the cause of sore spots as they compress the denture bearing soft tissues (mucosa).

Denture stomatitis is a common oral mucosal lesion of clinical importance in old age population. The prevalence rate of stomatitis is reported within the range of 11-67% in complete denture wearers. In many cases of denture stomatitis, colonization of yeast to the fitting surface of the prosthesis is observed. Other factors of stomatitis include allergic reaction to the denture base material or manifestations of systemic disease. Most authors seem to agree that a significant correlation exists between poor denture cleanliness and denture stomatitis whereas a disagreement or uncertainty exists on the question of etiology and even more, treatment of denture stomatitis.[18] Females are more frequently reported to be edentulous than males but denture hygiene was significantly better in females than in males. [19]

Majority of men (62%), and women (58%), were not able to adapt to their dentures and had difficulty in chewing. The low intake of fibre in the diet resulted in constipation and other digestive problems. Many of the respondents were apparently eating nothing because of the discomfort.[20] Complete denture wearers experienced difficulties with their dentures and most

frequently complained of pain and discomfort, difficulty with eating, and looseness of their dentures. [21]

Tongue:

With advancement of aging dorsum of the tongue shows reddening, atrophy of the papillae at the tip. Tongue may be completely smoothed lobulated. These changes bring about an altered taste and decreased appetite. Glossodynia or burning tongue, is seen in many adults, sometimes with no apparent clinical picture. It may be due to vitamin deficiency. Macroglossia, increase in the size of the tongue in elders is mainly pseudo type because of loss of tone of muscles of the cheek or expansions or oral cavity as result of loss of teeth. Elderly people are having less knowledge of oral hygiene and related practices. They consider other health disorders first on priority bases. They must be explained the consequences, they must be educated regarding the ill oral health effect and they must be motivated by calling them periodically for checkups.

Coronal dental caries and root surface caries:

High prevalence rates of coronal dental caries and root surface caries are found among old-age populations in several countries worldwide. In developing countries, data on dental caries among older people are scarce. A recent survey of 65-74 year old in Madagascar observed that the mean number of DMFT was 20.2; untreated dental caries was high DT = 5.3 while the number of restored teeth was low FT = 0.4.[5]

The Root caries index, i.e. the number of decayed and filled root surfaces with gingival recession over the number of decayed, filled, and sound root surfaces with recession was 5.4 in a study of older people in China.[22] In contrast, 12% of elderly subjects in India had exposed root surfaces, but none experienced root surface caries. [23]

Periodontal disease:

Genco et al. found an association between various markers of periodontitis and cardiovascular disease (CVD). It is found that good oral hygiene is essential reduce the mortality risk among elderly population. Mortality rate was found to be lower in people who maintain good oral hygiene, and visit the dentist at least once a year, had a lower mortality risk when compared with people who did not have good oral hygiene maintenance. [24,25]

Periodontal disease was found to be highly associated with poor oral hygiene or high levels of dental plaque other risk factors low education, lack of motivation, no dental check-ups and regular smoking has independent risk on progression of periodontal disease in older adults. Risk indicators for a higher prevalence of periodontal disease include increasing age, poor education, lack of professional dental care, previous periodontal destruction, tobacco use, and diabetes. [26]

Reports from previous studies stated that periodontitis is associated with coronary heart disease and diabetes mellitus. [27,28]

Xerostomia:

Dryness of mouth is a common problem in older people and the condition is reported in 30% of the population aged 65 and over. Persons suffering from dryness of mouth are likely to experience severe oral problems including high level of dental caries, difficulties in chewing, eating, chewing and deglutition.

Now, it is clear that salivary dysfunction is because of certain medicines and systemic diseases. Etiologies that lead to xerostomia are medicines (anti-histaminics, anti-hypertensives, diuretics, antidepressants) and radiation therapy. Unfortunately, these drugs are prescribed to adults very often and hence xerostomia is considered a disease of geriatric patients.

Osteoporosis and oral health:

Osteoporosis is a common phenomenon in which there is less deposition of the calcium and phosphorus in the bone and it is due to hormonal disturbances in the later stage of age. Investigators remain interested in the possibility of detecting osteoporosis in the maxilla and mandible during routine dental investigation procedures. Beside this, ridge resorption is a common and incapacitating problem in edentulous mandibles and several studies have suggested a correlation between ridge resorption and osteoporosis.

Oral pre cancer and oral cancer:

Precancerous lesion and conditions are mainly found in the elderly people. Age-specific rates for cancer of the oral cavity increase progressively with age, most cases occurring in the groups above 60 years. Oral cancer is more common in populations of less developed than of developed countries. The prevalence of leukoplakia and lichen planus in older people ranges from 1.0% to 4.8% and 1.1% to 6.6%. [29,30]

Barriers in Access to Health Care:

The gaps in health care services vary by race or ethnicity, income stratum, age, and area of residence (urban versus no urban). Low income, lack of supplemental insurance and age of 85 years or greater are other risk factors for poor access and use of health care.[31]

Recommendations: Oral health systems should effectively address factors that prevent or hinder the older population access to and use of appropriate services. Some people, for example, experience financial hardship following retirement and the cost or perceived cost of dental treatment may deter them from visiting a dentist. Such barriers to oral health care should be reduced.

In developing country like India barriers to oral health care are particularly high as there is shortage of dental manpower and low priority is allocated to oral

health by national health authorities. Affordable oral health care should be organized to ensure adequate early detection, prevention and treatment for all seniors as well as for other age groups.

CONCLUSION:

Older people can be a valuable resource; they can contribute to society within their families, communities, and national economies as either a formal or an informal part of the through volunteer work. Demonstration projects on oral disease control, health promotion and quality of life improvement should be initiated and evaluated systematically.

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