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Geriatric Dentistry-A Review

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ABSTRACT *Advances in science and technology have led to an increase in life span of human beings. The problems that this older population group face need to be given more attention and need to be brought more into the forefront of dental and oral medicine.Studies have shown the attitudes of geriatric population towards dentistry are changing.As people age they are better educated than previous generations of older adults.They have higher expectations about maintaining and preserving their natural dentitions and they have better financial resources to fulfill their expectations.It is important for the oral health providers to understand ageing in order to meet the needs of this population.This review article focuses on the strategies to provide a professional service that is sensitive and caring, supplemented with proper operatory design.*

INTRODUCTION

Geriatric dentistry is the delivery of dental care to older adults involving diagnosis, prevention and treatment of problems associated with normal ageing and age related diseases as part of an inter - disciplinary team with other health care professionals.[1]Geriatric patient is an older adult who is frail,dependent,or both and who requires health and social support services to attain an optimal level of physical, psychologic and social functioning.

The physiological process of ageing and the gradual diminution in acuity of the five senses are facts, but the rate at which they occur shows great variation.[2] The growing proportion of the elderly is attributed mainly to the decrease in mortality rates among older people and overall decline in birth rates. The World Oral Health Report 2003 emphasizes that oral diseases are age related, that the risk factors for chronic disease are common to most oral diseases, and that oral health is an integral part of general health and an important component of Quality of life (QOL). Chronic diseases are more prevalent in the older population, whose age associated physiological changes may deprive them of their mobility and independence.[3]

Older adults are expected to compose a larger proportion of the population than in the past. For dentistry, this means that older adults are retaining more of its natural dentition. The UN Population Division estimates that by 2050 the geriatric population will double in Africa and tripple in Asia.[4]The World Health Organization (WHO) documents that although the global population is growing at a rate of 17% annually, the aged population is galloping at a rate of 30% which implies that people over 60 years of age are outrunning young children below 15 years of age. [5]

India is a vast country with a population of more than 1.2 billion. Of this, people older than 60 years constitute 7.6%, which in actual number is 76 million. Incidence of oral cancer, which is considered an old age disease, is highest in India. Preventive dental care is almost nonexistent to the rural masses and very limited in urban.

According to 2001 population census (INDIA)
1.Population of india-1027015247
2.Life expectancy at birth- Male-62.4 Female-63.4
3.Birth rate (per thousand)- 25.4
4.Death rate (per thousand)-8.4

According to 2011 population census (India)
1. Population of india-1210569573
2. Life expectancy at birth- Male-67.3 Female-69.6 (population projection by R.G India.2011 2015)
3. Birth rate (per thousand)- 21.6
4. Death rate (per thousand)-7.0

Thus the population census shows that the population of india had considerably increased from 2001 to 2011 , with the decreased death rate from 8.4 to 7.0.

NEED FOR GERIATRIC DENTISTRY IN INDIA

Among the elderly in 65-74 yrs age group, the DCI survey reported caries prevalence to be about 70% while the multi-centric oral health survey reported it to be 51- 95% in various states. Higher prevalence (100%) of gingival bleeding in 65-74 years was reported from few states (Orissa, Rajasthan) in the multi-centric oral health survey. The loss of attachment (3 mm or more) was 96% in 65-74 years old in Maharashtra in the multi-centric oral health survey. The DCI study has reported prevalence of loss of attachment for 65-74 years as 60.7%,

which is comparatively lower than found in the multi-centric oral health survey. As per the multi-centric oral health

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survey complete edentulousness was reported to be maximum (18.5%) in Delhi, which was comparable with the DCI data, which reported complete edentulousness in 19.9%. The lowest level of edentulousness was reported from Arunachal Pradesh in only 16 subjects (1.0%). Of 18.5% edentulous subjects in Delhi, about half of them (9.8%) were using complete dentures while there were no denture wearers in Arunachal Pradesh. In Rajasthan, though the prevalence of complete edentulousness was 10%, only 0.1% had complete dentures.[6]

NEED FOR EDUCATION IN GERIATRICS

The need for geriatric dental education was realized in the late 1970s. Yellowitz and Saunders,[7]Kress and Vidmar,[8] and Ettinger[9] were the pioneers who championed the cause for special education needs for geriatric dentistry.

Kress and Vidmar-
listed competencies required in a geriatric dentist in the following three domains: 1)

knowledge—
psychology and sociology of ageing, diseases of ageing, pharmacology and drug interactions, biology and physiology of ageing, and general medicine/systemic diseases 2) skills—ability to communicate with elderly patients and other care providers, adapt treatment plan for elderly, diagnose treatment needs of elderly patients, perform specialized procedures, and plan overall management of elderly patients; and 3) attitudes- empathy/ understanding,caring/compassion, positive attitude towards older patients, respect for elderly patients, and flexibility in treatment planning (keeping planning realistic).

In the West, geriatric dentistry is a subject that is spread across the dental undergraduate curriculum . It is a speciality that takes care of oral health needs of the young old (65-74 years); old old (75-84 years), and the oldest old (85+ years).Few universities in India, for example, the Indira Gandhi National Open University, offer a Post-graduate diploma in Geriatric Medicine.So,there is a need that Geriatric dentistry should also be developed as a separate, independent speciality at the post-graduate level in India. [10]

PROBLEMS FACED BY THE ELDERLY

The dental diseases that the elderly are particularly prone to are root caries and rampant caries, attrition, abrasion, periodontal disease (periodontal pockets, gingival recession, mobility etc), missing teeth because of earlier neglect, edentulism, poor quality of alveolar ridges, ill-fitting dentures, mucosal lesions, oral ulceration, dry mouth (xerostomia), oral cancers. Many of these are the sequelae of neglect in the early years of life, for example, consumption of a cariogenic diet, and habits like smoking and/or tobacco, pan, and betel nut chewing. All these problems may increase in magnitude because of the reduced immunity in old age and because of coexisting medical problems. As a result of poor systemic health, the elderly patient often does not pay sufficient attention to oral health. In addition, medications like antihypertensives, antipsychotics, anxiolytics, etc, lead to xerostomia, and the absence of the protective factors of saliva in the oral cavity increases the predisposition to various oral diseases. Financial problems and lack of family support or of transportation facilities affect access to dental offices. The untreated oral cavity has its deleterious effects on comfort, aesthetics, speech, mastication and, ultimately, on quality of life in old age.

The oral cavity has a crucial role in chewing, swallowing, speech, facial expressions, and in maintaining the nutritional status and overall health, as well as self-esteem. [11] Factors like mental illness, dementia, psychosis, neurosis, depression, Parkinson's disease, arthritis, stroke, and muscular fatigue, all common in the elderly, affect locomotor skills and hence the ability to seek treatment. The dentist's behavior towards the patient and the time that the dentist gives for elderly patient is important if successful treatment is to be provided. The fear and anxiety felt by an elderly patient needs to be handled with great care and priority. Such patients need more of the dentist's time but, sometimes cannot afford to pay large amounts of treatment fees; earning more money being an priority, the dentist has little time for the geriatric patient, who is quickly disposed of in dental clinics.Careful consideration of all coexisting medical problems before initiating treatment is a cardinal rule in geriatric care.[12,13]

STEPS TAKEN BY GOVERNMENT

The Central and State governments have already made efforts to tackle the problem of economic insecurity by launching policies such as the National Policy for Older Persons (NPOP) which aimed to provide financial, food, health and shelter security, National Old Age Pension Program, Annapurna Program, etc. However, the benefits of these programs have been questioned several times in terms of the meager budget, improper identification of beneficiaries, lengthy procedures, and irregular payment. [14] Several schemes such as provident funds, pensions and gratuity, etc. provide financial security in old age. However, there is no social and financial security plan for workers in unorganized sectors such as farm labourers, daily wage earners, etc. The National Old Age Pension Scheme covers only 1% of the elderly population and the amount given is a paltry Rs 75–150 per month. [15]

CONCLUSIONS

All the above facts highlight the need for education in geriatric dentistry, which will enable dental professionals to understand, plan, and deliver need-based oral health care to our elderly population. The dentist must (i) empower himself/herself with the knowledge and skills to provide oral health services with empathy (ii) create awareness of the special needs of the elderly: for example, transportation to a dentist's office.Setting up of dental office with relevant infrastructure, which takes into consideration the requirements of the ambulatory and non-ambulatory elderly, will have a substantial impact on meeting the workload of the elderly. For the ambulatory patients, oral health care services need to be provided with suitable rails, ramps, lifts, wheel chairs, and a walker for transfer to a dental office.Non-ambulatory elderly however require different care. Geriatric patients in old-age homes, bed ridden elderly at homes , older persons in geriatric wards, the mentally challenged etc, need on-site dental services.Awareness and knowledge about geriatric dentistry would facilitate the setting up of separate oral health care clinics and involvement of multidisciplinary teams, mobile oral health services(by means of mobile dental van),domiciliary services in the urban and rural areas,etc.

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