Geriatric Dental Care : An Emerging New Speciality

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Abstract

The dental needs and challenges of senior adults are unique. This is more challenging when we come to know that the life expectancy of people is increasing. The number of male population above 70 years and female population above 72 years is expected to increase by 2025 in India. At any age a healthy mouth makes a lot of difference in life style and health. A healthy mouth also makes one feel good, stay healthy and look great throughout life. By 2050 the proportion of elderly in the total population is projected to be around 20% in India and 32% in other developed nations. Geriatric dental needs at present are not given much importance in our country. There is a strong need to focus on research encompassing all aspects of aging, dental and medical problems and its appropriate management.

Key Words: Dental need, Senior adults, Healthy mouth, Geriatric.

Introduction

All individuals would like to lead a quality life even when they are aged. Retention of teeth can have an impressive value on the overall dental, physical and emotional health of any elderly individual. Teeth help in not only for enjoyment of food but also for proper nutrition and pleasant looks. There is a relation between oral diseases and cardiovascular, endocrine and pulmonary health particularly in the elderly. This will be one more reason for the elderly to seek dental care.[1,2]

Geriatric dentistry is a science which deals with the diagnosis, management, and prevention of all types of oral diseases in the elderly population. It focuses of delivery of dental care to the elderly population. It also addresses age related dental ailments.[3]

The term geriatrics stems from a Greek word "GERON" that means old man and "IATROS" means healer.[4]

In treating elderly the main problem one faces is the complexity of the treatment that gets compounded due to ageing.[5] Factors like muscular fatigue, dementia, mental illness, depression, arthritis, stroke, Parkinson's disease, neurosis and psychosis which are common in elderly can affect the locomotor skills which in affects the ability to seek treatment. Successful treatment to these elderly also depends on the dentists' behaviour and attitude. The time allocated by the dentist for treating the elderly is also crucial for the success of treatment.[3,6]

Motivation is also the key to success when dealing with geriatric patients. Most of the time old people are very receptive to talking, but they should be provided time to open up and speak up about their financial options. Most of the time the old people live alone so patients should talk about their family also.[7] Earning more money as the only objective of a busy dentist will hinder the process of interaction with the patient and as a result the patient will be quickly disposed off in clinics.[3,6]

Three groups of older subjects are identified. They are young old (65-74yrs), older old (75-84yrs) and oldest old (above 85 yrs).[8]

Careful consideration of all coexisting medical problems before one initiates the treatment is a cardinal rule in geriatric care.[9,1] The lack of knowledge regarding the psychological management of elderly patients prevents many from working in this field. The exception is those who are naturally interested in the welfare of the elderly.

More than 50% of patients above 60 yrs are medically compromised and are on medication. Clinical conditions like diabetes, hypertension, cardiovascular diseases, arthritis and neuromuscular problems like Parkinson's disease and Alzheimer's can trigger emergency situation during dental treatment if proper considerations and precautions are not taken. The health care providers should be able to take initiative to know these conditions through proper history and medical reports and thus provide prophylactic guide lines.[9,10]

Feeling of neglect or loneliness can lead any elderly to endogenous depression. Senile dementia can lead to memory loss, confusion, difficulty in making decisions, comprehension and alter ability to learn new tasks associated with treatment modality.[11,1] If the elderly has hearing and vision impairment it can

worsen the situation further.

For ambulatory elderly oral care be provided at Chairside in a hospital setting. These hospitals setting should have suitable rails, ramps, lifts, wheel chairs and a walker for transfer to a dental office, all of which needs evaluation before the appointment. However in case of non ambulatory it's different. Portable chair side or bed side equipments need to be arranged in the places where the elderly stay. These places can be geriatric wards, institutions for mentally challenged, old age homes etc.[3]

Dry Mouth and Other Conditions

During old age there is reduction in saliva which leads to dry mouth. This may be due to the hypo functioning salivary glands. However this is not the only reason for reduced saliva in the mouth. Anti-depressants, anticholinergics, anti-hypertensive and anti-asthmatics can cause such conditions. Caries, periodontal disease, dysphagia can be consequences of such conditions. In such cases if they chew lozenges containing sugar to overcome dryness, it further worsens the situation.[1]

Maintenance of oral hygiene becomes difficult and leads to dental disease due to food impaction and plaque accumulation on the rougher cemental surface. All this is due to the gingival recession which occurs at old age.

Increased risk of secondary caries due to faulty restoration margins and poor oral hygiene along with dry mouth can also be seen in elderly. The retention clasps of partial dentures can also accumulate plaque and this can lead to further decay.

Compensatory changes occur in the teeth as they age and this can be also be due to the teeth responding to injury and other insults. Tooth tissue and supporting tissue undergo a lot of changes. Wear, disease and habits lead to many changes. Reparative capacity of the pulp is reduced following injury.[12] Volume of pulp is reduced and the thickness of dentin is increased. To compensate between loss of bone support and excessive from occlusal forces imposed on teeth, attrition occurs. Proximal wear of posterior teeth can cause anterior edge to edge bite and reduced over jet. Loss of sluice ways is seen with an increase in food table.[12,13]

Before a clinical treatment is planned the following is to be considered.[14]

1. Patients' expectations and desires.
2. Type and severity of dental problem depending on function, symptom, pathology and esthetics.
3. Prognosis.
4. Factors that affect personality.
5. Alternatives.
6. Patient's ability to tolerate stress during treatment.
7. Motivation.
8. Financial sources.
9. Family support.
10. Life span.

When an ideal treatment is not possible, then individual problem should be focussed upon and then distinguish between ideal, realistic alternatives and then interim plan.[1]

Staged treatment planning was suggested by Bannet and Cramer. According to them careful staging of the treatment can deliver the requisite care in increments and resolve the immediate problems and then consider providing more elaborate and comprehensive care. Staged treatment plan.[1]

Stage1: Emergency care.

Stage 2: Maintenance and monitoring.

This includes chronic infection management, root canal therapy, root planning and curettage, caries treatment, denture related work, patient education. This is followed by evaluation before proceeding.

Stage 3: Rehabilitation phase.

Includes Implants, surgical endodontics, surgical periodontics, esthetic rehabilitation, reconstruction of occlusal plane and restoration of vertical dimension

Care of Functionally Dependant Elderly

Normal day to day activities for these people will need assistance. Physical and psychological comfort should be maintained in them by minimal treatment. When the patients are severely diseased a physician's presence and service will be essential. Whenever there is risk involved the person should be hospitalised for necessary treatment. Restorative management can be done by atraumatic restorative treatment.

Common Oral Diseases Seen in Elderly

Dental caries: Coronal and root caries.

Treatment consists of-

1. Restorative phase.
2. Maintenance phase.

Dry mouth and non carious lesions should be treated. Esthetic rehabilitation and endodontic treatment should also be considered if need arises.

Situations that post limitations for root canal treatment in elderly-

1. Severe Parkinson's disease.
2. Tremors.
3. Inability to sit for a prolonged time.
4. Mental illness.

In the elderly we come across many technical challenges during root canal treatment. Pulpal response to the vitality tests may be diminished due to increased amount of dentin deposition and pulpal fibrosis. It may be wrongly assumed that the pulp is non vital and root canal treatment may be initiated. Treatment should be carried on only with supporting evidences other than pulp vitality tests.[15] The use of adrenaline in some conditions in elderly is also not advisable. Isolation becomes difficult when there is cervical caries and the rubber dam has to be placed with special technique.[1] Narrowing of the pulp space, pulp stones, supra erupted teeth, tilted teeth can further pose challenges. The use of half sized files may be of good help in gaining path for the enlarging tools to follow. More time and effort is needed to work in such narrow canals to prevent instrument breakage or binding.[1] Multiple appointments can be given in case the patients are having difficulty in mouth opening and bite blocks can be also used if needed.[16]

Conclusion

There is an increasing number in elderly population with an increased life expectancy. However there are no oral health care centres catering to the special needs of the elderly. Declining traditional family support and changing family structure are making more and more elderly people to take care of themselves. The need for education in geriatric dentistry is essential. This will enable dental health care workers to understand and treat the elderly in a proper manner. Awareness and knowledge would facilitate the setting up of separate health units for the elderly. Undergraduate teaching in geriatrics is very much helpful in training the students to provide oral health care to provide oral health care to the elderly.

References

References are available on request at editor@healtalkht.com