

Old Age and its Negative Impact on Oral Health Status

Radha Prasanna Dalai¹, Sourav Chandra Bidyasagar Bal¹, Subrat Padhihari², Sashikant Sethi³

¹Senior Lecturer, Department of Public Health Dentistry, ²Senior Lecturer, Department of Oral Surgery, ³Tutor, Department of Public Health Dentistry, Institute of Dental Sciences, Siksha 'O' Anusandhan (Deemed to be University), Bhubaneswar, Odisha, India

Abstract

The older group of people (above sixty-five years) are facing lots of health and oral health issues due to the phenomenon of getting old. For that reason, this group needs the most attention to their health. Towards the end of the 20th century, the configuration of various age groups of people transformed tremendously. There are more older people and much more entered into the older group. This dynamic change has a direct effect on oral and systemic health. Dentist has great hand in solving the oral problem in geriatric people. Dentist should always consider the nutrition factor of geriatric patients. Topmost problem regarding the oral care facility in the older population is underestimated the oral disease Proper dentist population ratio throughout our nation to provide better dental care. Regular screen camps in different places to find older patients and gave them special care because due to rapid dental caries, periodontal disease, tooth loss the old people facing various problems.

Keyword: Oral Disease, Xerostomia, Aging.

Introduction

There are various developmental stages of Human beings. Development phases are starting from birth (infancy, childhood, young adult, adult, older adult, old aged). All the above phages are biological or natural phenomena. As the human being getting older various changes found inside his body. The longevity of human life is increasing day by day in the twenty-first-century due lurching of modern medicine and different kind of modern public health programs. The older group of people (above sixty-five years)are facing lots of health and oral health issues due to the phenomenon of getting old. For that reason this group need most attention to their health.¹

Towards the end of 20th century, the configuration of various age group of people transformed tremendously. There are more older people and much more entered into an older group. This dynamic change has a direct effect on oral and systemic health. Among these older age group people, the physical condition of some people required attention to their dental health in the dental clinic but not all.^{1,2} As per the report of world health organization, the number of the population throughout the globe increasing annually is around two percent and on the other hand the percentage people crossing the age sixty-five, is around three percent. From estimation it is calculated that till 2050 there will maximum changes in age composition in developed and rapidly developing nations. According to UN estimation the older age group reaches around twenty percent from the whole population of the globe.

Corresponding Author:

Dr. Radha Prasanna Dalai

Senior Lecturer, Department of Public Health Dentistry, Institute of Dental Sciences, Siksha 'O' Anusandhan (Deemed to be University), Bhubaneswar, Odisha, India

e-mail: radhadalai@soa.ac.in

In 2020 the total population of our India is around 1.3 billion. From 1.3 billion older people above sixty-year age are around eight percent (around eighty million). Various oral cancers like squamous cell carcinoma mostly found in older age group and maximum oral cancer case found in republic India.³

As the human being entering to the older age group, he/she may develop some systemic disease. In the presence of various systemic diseases in old age he/she lost his ability to maintain his oral health. The person lost his ability to maintain oral hygiene properly, which direct or indirectly affects the lifestyle of that individual. Though this type of condition is not life-threatening but hamper some part of quality of life. For the proper care should be taken by the dentist to maintain their oral hygiene. Special dental care should mandatory for older group citizen.³

Different category of older: Citizen from sixty-five years to seventy-four comes under young older are physically active and healthy Citizen from seventy-five years to eighty-four comes under middle old are little different from physically active and healthy older goes through some systemic disease. The last one is above eighty-five years come under the oldest group and not physically active. This group is very much venerable to most oral diseases. Sudden proliferation in the age of sixty-five years since the last ten years in the world and India comes in that.⁴

Condition of Oral health among the older population:

Impact of various Nutrients among older groups and its utilization in dental care: The availability of a Sufficient amount of nutrients products in the body plays an important role in improving the oral health and general health of the older population. Deficiency in the nutrients inside the body hurts the normal physical and mental activity of older people. Worst dental health may be a crucial point for nutritional status and health. Any disability in the oral cavity has a significant contribution to less eating practice among the old age group. A mobile tooth, mild to moderate pain in the tooth or faulty prosthesis can reduce the ability of chewing habits. Less amount of nutrition harms the dental care of old people. So proper nutrition should mandatory for proper oral care of older people.

Due to a decrease in the process in BMR(basal metabolic rate) the food calorie amount of body also decreases in old generation people, which leads to a decrease in mass of the muscle and physical activity in old people. Decrease in appetite process of the body and less food intake there is a deficiency in the amount of Ca, I, and Zn in women. Around Eight thousand kJ calorie need for eighty years old people. Physical active old

need around 1gm/kg protein everyday. Process Necrosis of tissue is more in old people for that they need more protein. Bedridden older patients have less chance to expose to sunlight for a long time so they are more risk for developing osteomalacia due to less SUNSHINE VITAMINE. Vitamin C, iron also required.⁵

Oral health has significant hand genera health in old people. Tooth loss and faulty prosthesis has a direct negative impact on mastication and test sensation. Defective mastication can be corrected by replacement of proper prosthesis. Correction in the mastication by proper prosthesis can change the dietary habit and increase the nutrient amount in the body of old people. Prevalence of Cervical caries and root caries is more in old people. Dentist has great hand in solving the oral problem in geriatric people. Dentist should always consider the nutrition factor of geriatric patients. If there is some nutritional problem dentists have to solve it in the proper method which will be effective on the later stage.

Problems arise due to decrease of salivary secretion in geriatric patients: The normal function of the salivary gland hampered due to aging is a normal phenomenon. It adversely affects dental health. Saliva in the oral cavity act as a safeguard for the upper respiratory tract and upper part of the digestive tract from various infections. It also regulates some sensorimotor fibers. Xerostomia make the oral environment suitable for various micro-organism. Major changes found in major salivary glands due to atrophy of acinar cells due to increasing age. Degenerative alteration also found in various salivary gland-like parotid, submandibular with advanced age. Changes found in palatine and lingual gland also due to old age.⁶ Salivary dysfunction is less in old age people who are comparatively physically healthy and active. A salivary gland dysfunction can be reversed to normal function. Xerostomia leads to dental caries in old group population.⁶

Oro mucosal changes due to the aging phenomenon: The mucosa of the oral cavity acts as a first-line defense in the oral cavity. Defect in function of oral mucosa made the oral environment favorable for various pathogenic organisms harvest inside the mouth. All the layers of the oral mucosa have their protective function. Keratin synthesized by oral mucosal epithelial tissue, which maintains oral mucosal. Adipose tissue of oral mucosa mainly defends oral mucosa.⁷ Epithelial cell turnover done by oral mucosa in the oral cavity and it

is a protective mechanism. Data from different surveys says that oral mucosa became thin with an increase, which is associated with loss of stippling and elastic nature of mucosa. Some changes marked in tongue like depopulation. An increase in the number of *Candida albicans* causes candidiasis or oral thrush. Healing takes a long time.⁸

Various changes of tooth with advanced aged:

After full maturation of tooth structure, slowly its changes with advanced age. The demineralization process starts of tooth structure. Due to long term demineralization enamel layer lost totally. Micro changes occur inside the tooth surface. Loss of occlusal surface of the tooth and facial surface of tooth seen in mostly old age group. Looks of the tooth different from newly erupted teeth. Refractive index of light in tooth structure also changes due to increasing age. The normal thickness of tooth dentine also decreases. Various defects found on tooth structure. Tooth pigmentation also found. Due to a lack of proper oral hygiene, the color of teeth change in old patients.⁸

Various ion exchange phenomena take place in the upper surface of the tooth (enamel). Tooth became highly brittle and porous due to increasing age. Restoration is the process by which we can make the prognosis of the tooth good in old age. The structure of pulp is different in old group people than young people.⁸ The volume of the pulp chamber decreased due to less pulp cells. Repair capacity of pulp decrease with increasing age. Calcification of pulp chamber occurs, with aging in most of the case. Electronic microscopic images of the pulp chamber of old patients look different from young patients. Thin root canal found in old people. More amount of F and Mg found in old patients. Some biomarkers also found in the cementum of old people. Micro annular ring found in old patients and that helps in forensic investigation. Morphology of tooth changes with increasing age which linked with clinical examination. Restorative treatment has a good impact on tooth structure. Around five to seventy percent of old people throughout the globe have CPI score four. Most study data says that periodontal disease increase with aging. Periodontal disease is not considered a special disease but it started from a young age reaches chronic periodontitis in old age. Periodontal disease is due to the accumulation of sub and supragingival biofilm formation. Breakdown of periodontium creates more oral problems in old ages. Bleeding gum, swelling of gingival found some time discharge of pus found.^{9,10}

Need for preventive services: In recent prevalence of oral disease is increasing day by day. Disease like gingivitis, periodontitis, dry-mouth, root caries are increase in the old generation. Most of the old people think that mobility of tooth, tooth loss are natural phenomena and can't be prevented. Many people think that in old age when it emergency then go to dentists for check-up. Few people go for regular dental check-ups. Some important causes that keep most of the old people from getting oral care such as health issues like- Oral health condition, Filling discomfort, long term illness, physical disability, Socio-economic causes, residence places, Education level, amount Income, Age issue, gender, Culture factor, communication facility, doctor behavior, cost of service, self-interest

Conclusion

The topmost problem regarding the oral care facility in the older population is underestimated the oral disease. This underestimate nature towards oral health is found mostly in India. Barrier in getting oral care in India is lack of proper communication, lack of education, language barrier, cultural barrier, belief in various myths regarding oral disease etc, Political census etc. Awareness knowledge regarding oral disease may change the attitude of our people to focus their attention on oral health. Home care of elder patients by caretaker can improve the oral health of older people. India should implement a proper program for oral health. Proper dentist population ratio throughout our nation to provide better dental care. Regular screen camps in different places to find the older patient and gave them special care because due to rapid dental caries, periodontal disease, tooth loss the old people facing various problems.

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