

**Aged and Senior Aged Persons Orthopaedic Treatment**

**K. S. Manjunatha**

Department of Pharmaceutical Chemistry, Kuvempu University, Post Graduate Centre, Kadur-577548, Karnataka, India.

**Abstract:** The article deals with orthopaedic treatment of older age. And also the treatment is analysed in accordance with special ages.

**Keywords** Gerontology, the elderly, fear, prosthesis, social services.

**Introduction**

Given by statistics, in some highly developed countries, and in our country, life expectancy has increased significantly, and in this regard, significantly (to 60-70%) increased the number of people who have not a single tooth in the mouth. Each qualitative step in the individual development of man is characterized by a number of morphofunctional features, the study of which is a task of great practical importance, since without these studies it is impossible to construct a scheme for age-related periodization. At the special International Gerontological Symposium, the following agreement was reached on the issue of "age boundaries". Age 50-64 years considered average, 65-74 years - pre-old (the elderly), 75-90 years – senior. However, clinicians, and primarily psychiatrists, consider the age of 45-50 years as the beginning of the involutionary period in humans. The entire evolutionary segment of ontogenesis splits into three periods: the first - 45-60 years - the climacteric or post-productive period, the second - 60-70 years - presently, the third - 70 and higher - the senium. Speaking of late age, one must bear in mind the entire evolutionary segment of ontogenesis, beginning after 46-50 years. Aging is characterized by many morphological, functional and metabolic shifts. With the increase in the number of lived years (calendar age), the frequency and severity of these shifts increase, which allows us to consider them a natural measure of the degree of aging. However, it is well known that two individuals of the same calendar age can differ sharply in terms of the signs of aging. This reflects the individual variability in the rate of age-related changes and determines the need for a reliable indicator of aging. This indicator is the biological age that characterizes the physiological state of the individual, in contrast to the calendar age, which corresponds to a more or less wide range of vibrations of morphological and functional parameters in a given population. Aging, old age - a normal physiological phenomenon, characteristic of all multicellular organisms, it is characterized by impaired functional abilities of the organism, the activity of all organs decreases. A number of changes occurring at the molecular and cellular levels, leads to disruption of the functioning of organs and the organism as a whole. For old age, as for other periods of a person's life - childhood, adolescence, maturity, age characteristics, age norms are characteristic. If in a youth the phenomena of progressive development prevail with the increase of possibilities for adaptation to the environment, then in the period of withering and reverse development (involution), regressive phenomena predominate that worsen the adaptive capabilities of man. All life's paws from birth to old age are complex, contradictory processes. Not all cells, tissues, organs and their functions are aging at the same time and to the same extent. For all that, the process of physiological aging is naturally harmonious. Although there is not always a coincidence between calendars (age) and actual (bodily and psychic) aging, there may be both premature and delayed aging, nevertheless, in the main, late age determines senile changes. Science, which studies various problems of aging, is called gerontology. It has three aspects:

❖ biological- in this aspect of gerontology, the fundamental aspects of aging are considered;

- ❖ clinical- this area includes the study of diseases of "old age", such as cardiovascular, cerebrovascular diseases of the brain, malignant tumors, arthritis, rheumatism, autoimmune diseases, and the development of methods for their treatment. It is called geriatrics;
- ❖ Socio-psychological - this area deals with the social and psychological problems of old and retired people.

It is known that in the prevention of premature aging of man, the full function of the chewing apparatus is important. From this point of view, prosthetics should also be considered as a factor in combating the phenomena of aging. Important are the study and assessment of adaptive capabilities and reserve forces of the body, its compensatory mechanisms. Undoubtedly, the age-related decrease in the adaptive capacity of the organism, the morphological and functional changes in tissue structures are factors that determine the features of age-related changes in the system of neurohumoral regulation, as well as the structural fund of organs. Complete or significant loss of teeth occurs most often at the age of 60 years and older. Elderly age determines the main feature and complexity of orthopedic treatment of this group of patients in connection with a decrease in the adaptive capacity of their body. Orthopedic treatment of elderly people requires taking into account the patient's mental and physical status as a whole, as well as the condition of the organs of the maxillofacial area due to the appearance of age-related changes and disturbances in them. With complete loss of teeth, the body and branches of the jaws become thinner, and the angle of the lower jaw is blunter, the tip of the nose drops, the nasolabial folds are sharply expressed, the corners of the mouth and even the outer edge of the eyelid drop. The lower third of the face decreases in size. There is flabbiness of the muscles, and the face acquires an old age expression. In connection with the patterns of atrophy of bone tissue, the so-called senile progeny is formed on the upper and lingual on the lower jaws to a greater extent from the vestibular surface, which is characterized by a change in the ratio of the jaws in the transversal direction. With complete loss of teeth, the function of the chewing muscles changes. As a result of reducing the load, the muscles decrease in volume, become flabby, atrophy. There is a significant reduction in bioelectrical activity, while the phase of bioelectric dormancy over time prevails over the period of activity. For people of senile age, the extinction of metabolic processes, the decrease in the functions of the endocrine glands, the slowing of the reparative processes, the prevalence of dystrophic and atrophic processes that are most pronounced in the bone tissue of the human skeleton, skin integuments are characteristic. Also, age changes affect all organs and tissues of the maxillofacial system: joints, muscles, jaw bones, the remaining teeth, periodontium and the oral mucosa. It is known that with age, the epithelial layer of the mucous membrane of the oral cavity is atrophied, the elastic fibers disappear in the submucosa, the mucosa becomes sensitive, easily vulnerable, and the wound healing process is disrupted. Vascularisation of soft tissues and bone base worsens, general dehydration of tissues is observed. The metabolic disturbances in the body, in particular the calcium balance and the increased leaching of calcium from the body lead to a depletion of the cortical and spongy components of the jaw bones; therefore, in elderly patients, even with normal prosthetic load, the manifestation of atrophic processes in bone tissue is aggravated and leads to irreparable losses. In the old age, degenerative changes in the salivary glands are possible, which leads to a decrease in salivation and an increase in the content of mucin in saliva. The saliva becomes thick and viscous. It should be noted that in this category of patients a low level of hygienic state of removable dentures. Partly because of the difficulties associated with the fact that patients, given the age, cannot service themselves, in part because of the high cost of hygiene products for cleaning dentures. The joint fossa is flattened; the head is displaced backward and upward. Loss of teeth as a result of complications of caries and periodontal diseases determines the high need for prosthetics. Removable prosthesis is difficult due to age and pathological changes in the alveolar process. In a number of cases, patients who are accustomed to grind food with a thickened mucous membrane covering the alveolar

process do not want to be prosthodontized. A specific of using removable dentures in this category of people is a long and uncontrolled use of them for 10-15 years or more.

There are several reasons why elderly and senior people refuse dental care:

- ❖ fear of pain during medical procedures;
- ❖ visiting the dentist is postponed until the moment of acute necessity;
- ❖ Indifference to yourself, your health;
- ❖ lack of confidence in the treatment;
- ❖ poor health, difficulty in moving;
- ❖ remoteness of the dental clinic from the place of residence and inconvenience associated with a trip in public transport;
- ❖ Poor state of health and short duration (in the opinion of patients) of the remaining life.

A significant part of dental patients (age group over 60 years of age) seek help from the orthopedic dentistry clinic for the purpose of repeated prosthetics. However, this type of prosthetics in many cases is ineffective. Although, at first glance, treatment is carried out by the same prosthesis designs. In such cases, patients continue to use old prostheses, and a new, repeated prosthesis is even more difficult. Quite often, patients in old age use their old prostheses for 15-20 years. As a rule, because of the abrasion of the plastic teeth, the interalveolar height decreases and the lower jaw is not set in the central occlusion, but in the "usual" one. At the same time, occlusal curves are formed on the prostheses, to which the patients are accustomed and whose changes in new prostheses do not bring relief to the patients, but rather to turnover. Therefore, such a group of patients cannot always adapt to new qualitatively manufactured prostheses. Do not hurry with the manufacture of new dentures for the elderly, who have old, stable and comfortable prostheses for them. This is especially true in cases when there are no motivating reasons (caring for appearance) in the patient himself. Given that the adaptive capacity of the elderly is very low, in some cases, it is necessary to limit the correction of old prostheses (by slightly restoring the height of the lower third of the face and improving the fitting of the prosthesis to the tissues of the prosthetic bed by laboratory relocation). In the case of the manufacture of new prostheses, the location of the teeth, the width and length of the dental arches, the size of the lingual space and the optimal border for the given prosthesis should be copied from the old prosthesis. In order to prevent complications associated with the use for a long time of removable plate prostheses, it is advisable to reconstruct and make new prostheses individually. Orthopedic treatment using removable plate prostheses presents certain difficulties associated with the transfer of masticatory pressure to tissues physiologically not adapted to its perception. The effectiveness of orthopedic treatment depends not only on the technology of making complete removable dentures, but also on the quality of determining individual characteristics of the functioning of the maxillofacial organs in combination with orthopedic functions. The dental health of most elderly and elderly people depends on improving the quality of dentures, enhancing their functional and aesthetic properties. The operation of complete removable prostheses, despite their specific adaptability, represents an element of a permanent physical stimulus that does not fully replace the natural jaw structure and often contributes to the development of secondary pathological changes in the oral cavity, gastrointestinal tract and the body as a whole. Thus, working with elderly and senile patients, it is necessary:

- ❖ receive functionally-sucked impressions under the force of the chewing pressure of the patients themselves;
- ❖ to produce removable plate prostheses with a soft gasket;

❖ In order not to change sharply the dynamic stereotype, worked out by the old prostheses, to restore the existing prostheses; apply artificial saliva «Biotene»; use periodic mechanical cleaning of prostheses in devices such as microcline, as well as enzymatic tablets "Feoton" for disinfection during storage of dentures.

❖ for the accelerated adaptation and treatment of pressure sores, it is desirable to use the film "Protopen-M", which improves the fixation of prostheses, relieves pain symptoms and accelerates the healing of pressure sores;

❖ at the stage of adaptation to new prostheses, apply an adhesive powder with a fungicidal component. The state of health of the population of the elderly and senile has its own peculiarities that make appropriate requirements for medical and social services for this contingent of patients. Increasing interest in the living conditions of the elderly, as well as assessing their dental status, can contribute to the development of various dental care programs.

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