Need For Orthopedic Dental Care of Adult Urban Population of The Republic of Kazakhstan

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ABSTRACT

Mass dental examinations of the adult population of the Republic of Kazakhstan were conducted. 3 age groups were examined: People living in the city of Almaty were selected for the study: middle (45-59 years old), elderly (60-79 years old) and senile (80 years and older). The studied individuals were found to have a high loss of teeth, which is 79.3% of the urban and urban population. The most common dental defects are found in the elderly age group 59.4%, and in older people 30.9%. A high frequency of complete absence of teeth was revealed in the elderly 24.2%, and in the senile 48.0%. The results of the dental examination require improvement of orthopedic dental care in the Republic of Kazakhstan.

Keywords: Needs, dental morbidity, orthopedic treatment, dental care.

Relevance.

Due to the rapid rate of aging of the world's population, including in Kazakhstan [1,2,4,5,9], the issues of providing dental care to elderly and senile people are becoming increasingly relevant. Tooth loss, which reaches a maximum at the age of 60, changes in the oral mucosa in combination with chronic general somatic diseases significantly reduce the adaptive capabilities of the body, as well as the quality of life of the elderly [2]. As the number of elderly people increases, their share in the total number of people in need of dental care will increase [3,7].

The purpose of the study

Is to study dental morbidity among the adult population of the city and determine the specifics of their orthopedic treatment.

Research methods:

A mass dental examination of the adult population was conducted on the basis of outpatient polyclinic organizations in Almaty. Clinical research methods were carried out using specially developed outpatient WHO questionnaire cards.

Target groups: the surveyed are divided into the following age groups: from 45 to 59 years - the average age group; 60-79 years old; 80 years and older senile age. The number of the surveyed population for the epidemiological study was 218 people, of which 208 respondents were selected for detailed analysis. There were 71 men (34.1%), 137 women (65.9%), i.e. women predominate among the examined.

The analysis of the age of the surveyed showed that the predominant number of the surveyed are persons aged 60-79 years, which is 59.6%, senile persons made up 12.0%, the average age group included 28.4% of the surveyed.

According to the results of dental research, it was revealed that 79.3% (165 people) of the examined patients of the urban

population have defects in the dentition. Complete absence of teeth occurs in 22.6% of cases, i.e. every 5-6 examined persons does not have teeth in one jaw. Periodontal diseases were found in 51.4% of cases, and carious lesions requiring treatment were found in 25.0% of cases. The results of studies of defects in the dentition showed that the largest number of patients with a defect in the dentition are elderly people - 59.4% (98 people), almost twice this indicator is less in middle-aged people - 30.9% (51 people), and senile people have defects in the dentition to a lesser extent because they have a predominant indicator - "complete absence of teeth".

Analyzing partial defects of dentition according to the Kennedy classification in different age groups, it should be noted that in all age groups on the upper jaw, defects of dentition in class 1 are found in most of the examined, followed by defects of dentition in class 2.3, the smallest number of persons with defects in class 4.

The number of people using artificial crowns was only 45.5%, of which 55.6% of those examined were in the elderly age group, and in the middle age there are crowns in 32.1% of those examined. The smallest number of those examined with crowns (12.3%) were in people aged 80 and older. Most of the crowns on the side teeth are made of stainless steel, with a titanium nitride coating. The front teeth have crowns made of cermet or plastic. Fixed bridge prostheses were found in 37.2% of the examined, they are mainly represented by stamped-soldered structures. More than 90.0% of manufactured bridges have titanium nitride coating, which in places depart from the main structure and represent a surface with elements of metal corrosion. Gold prostheses and metal-ceramic structures are rarely found. In just two cases, we have described prostheses made of metal-free ceramics.

Orthopedic treatment with partial removable plate prostheses of the urban population was detected in 26.4% of the surveyed. Of these, mainly in the elderly group - 61.8%, in the middle age -21.8%, and 16.4% in the senile age group.

Indicators of the presence of complete absence of teeth increase in accordance with age. In the population under the age of 59, it is 8.5%, of which 80.0% are in the upper jaw, and 20.0% are in the lower jaw. At the age of 79, this indicator increases to 24.2%, with predominant localization in the upper jaw -36.7%, in the lower jaw - 13.3%. The total absence of teeth on both jaws was 50.0% of the number of persons with complete adentia. At the age of 80 years and older, the total loss of teeth increases to 48.0%, that is, the number with complete absence of teeth reaches 50.0% of the number of examined teeth in the upper jaw 33.3% in the lower jaw 25.0%. In this age group, 41.7% of those examined with complete adentia do not have teeth on both jaws. The material for removable dentures is acrylic plastics and artificial teeth are also from this category. The materials are mainly produced in Russia and Germany.

The urban population revealed the presence of complete removable prostheses in 17.3% of cases. Of these, 69.4% are in the elderly group, 27.8% in the senile, and 2.8% in the middle age group.

In the study of the condition of toothless alveolar processes, more pronounced atrophy was detected in the lower jaw, and the loss of alveolar processes in the upper jaw to a lesser extent. These data characterize the complexity of dental prosthetics on the lower jaw.

Compared with the data of studies conducted in Russia [6,8], where complete loss of teeth at the age of 60-70 years is observed in 27.0% of individuals, in the Republic of Kazakhstan, in urban residents, this indicator is 24.2%. According to WHO standards, the proportion of elderly people with complete absence of teeth older than 60 years is allowed to 1.0%, in our case, this figure exceeds it by more than 23 times.

These data clearly indicate the need for urgent orthopedic care for people suffering from complete absence of teeth. The majority of the examined persons have the greatest number of complete loss of teeth in the upper jaw, with the exception of the senile age group, where the greatest number of complete absence of teeth is present on both jaws.

Conclusion.

As a result of the mass dental examination of the adult urban population of the Republic of Kazakhstan, it was revealed:

1. High loss of natural teeth in all the studied groups, which reaches 79.3%, which indicates the need for radical improvement of dental care to the population of the Republic of Kazakhstan.

The largest number of defects was detected in the elderly age group, which amounted to 59.4% of the number of those who lost teeth, and the indicators of complete tooth loss in that age group are 24.2%, which is extremely important for drawing up a plan for the organization of dental services for this category of examined.

2. The total absence of teeth is 22.6%, which is detected mainly in the elderly and senile persons. The presence of complete absence of teeth in persons under 59 years of age in 8.5% of cases is alarming.

3. A low level of orthopedic dental care was revealed to the population, which is expressed in providing them with artificial crowns in 46.0%, fixed bridges in 37.2%, removable plate prostheses with partial absence of teeth in 17.3%. Modern dental constructions are found in isolated cases.

4. The results of the mass dental examination showed the need to improve not only orthopedic dental care, but also the entire dental service in the Republic of Kazakhstan. It is necessary to introduce new innovative technologies in dentistry, providing affordable materials for treatment and dental prosthetics.

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