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CLINICAL-EPIDEMIOLOGICAL CHARACTERISTICS OF PATHOLOGICAL PROCESSES OF PERIODONTAL TISSUES OF INFLAMMATORY-DESTRUCTIVE NATURE

ABSTRACT

Today according to Russian and foreign researchers the prevalence of parodontium diseases is high and does not tend to decrease. A wide range of etiological factors and pathogenetic mechanisms of the development of parodontium inflammatory diseases influence on the carrying of complex treatment-and-prophylactic actions. At the same time parodontium diseases often lead to teeth loss, contributing to formation and development of dentoalveolar system disorders and further digestive tract diseases. In this regard, pathological processes of parodontium tissues have both medical and social value as patients are usually of the working-age.

According to the WHO data the prevalence rate of parodontium diseases among various groups of population is characterized by particular features. So, worldwide more than half of the examined patients at the age group of 12-15 years have parodontium diseases, at the same time at the age of 35-44 years it has total character. At the same time in Russia 12-year old patients make 1/3, and 15-year-old teenagers have slightly lower than a half surveyed, at the age of 35-44 years only 1/5 part has rather healthy parodontium. Meanwhile, the high level of parodontium diseases was noted among the North inhabitants due to severe climatic conditions and specific regional environmental and biological risk factors.

It should be noted that quite often treatment of periodontal disease of inflammatory and destructive processes can take several years, and in certain cases it continues during all life. A desire of the patient and dentist to gain most expected clinical effect without damage of the functional activity of dentoalveolar system that demands carrying out further researches for the perfecting of the periodontal help to the population is explained.

Keywords: parodontium diseases, prevalence rate, dentoalveolar system, treatment, prevention.

Nowadays despite broad studying of periodontal diseases, there are still problems of their treatment and prophylaxis [7, 11, 14, 37]. A wide range of etiological and pathogenetic aspects of pathological processes of periodontal tissues and a high level of prevalence among various age groups of the population make particular treatment-and-prophylactic difficulties [9, 17, 19- 21]. In this regard scientists are researching new effective methods of

complex therapy of periodontal diseases which is not only the main odontology problem but as well as the national objective priority directed to preservation and promotion of health of the population [18, 22].

Due to level of prevalence periodontal diseases take the second place after caries and its complications [14, 38, 40]. At the same time various pathological processes of periodontal tissues of inflammatory and destructive character cause assumptions of developing of chronic infection in the oral cavity, teeth loss, psychoemotional and working disorders of patients which is urgent medical and social problem [42].

According to the World Health Organization teeth loss of periodontal diseases in 5 times more often promotes the functional disorders of dentoalveolar system in comparison with teeth loss at caries [12]. The prevalence of pathological processes of periodontal diseases is characterized by same features worldwide. Thus, in age group of 12-15 years the average index varies from 61 to 96% whereas in age group of 35-44 years within 96-100%. At the same time the complex research has established what in age group of 29 to 44 years only 4-5% of the examined have been found clinically healthy periodont [12, 24, 25].

The researches of children of school age of 8-12 years in Italy defined a high level of periodontal diseases which reached the level of 97% [1, 14, 16, 21]. The largest frequency of inflammatory periodontal diseases of various severity in age group of 15-19 years were found in Africa and South-Eastern Asia where indexes reached respectively 90-95%. 18-20% of this age group in America and Europe has healthy periodont [27].

In age group of 35-44 years the average world index of periodontal diseases varies from 65 to 98%, in the USA – 70% where a third loss of teeth happened according to periodontal diseases. In Europe 15% of this age group have deep periodontal pockets with affection of 5 and more sextants [5].

It is necessary to emphasize that researches of the population of the Russian Federation have reveled certain features. Thus, 12-year-old children showed the prevalence of periodontal diseases at 34%, and 15-year-old teenagers reached the level of 41%. At the same time in these age groups there are symptoms of inflammation as following: gums bleeding (23 and 22%), dental calculus (11 and 19%). Meanwhile the average indicator of the affected sextants was 1.14 at 12-year-old children, 1,42 at 15-year-old teenagers. Among adult population at the age of 35-44 years signs of tissues periodontal lesion were 81% where 16% of them had pathological periodontal pockets. But, at the same time, 2.28 intact sextants were noted in indicators of intensive periodontal tissues lesion among adult population. With the age older than 65 years and more the natural tendency to teeth loss becomes perceptible and the prevalence level respectively decreases where only 0.57 healthy sextants are defined in indicators of intensive periodontal diseases [6, 36, 39].

The clinical-epidemiological researches showed that 12% of the Russia population have intact periodont where 53% have initial inflammatory phenomena and 12% more expressed inflammatory and destructive processes of early and severe degree. Meanwhile in the Central European, Southern European and West Siberian regions in the age group of 35-44 years from 15 to 16% population have healthy periodont and bleeding - 24%. Whereas in the Ural Federal District these indicators are respectively 11 and 51%. In the Far Eastern Federal District patients of this age group have about 40% healthy periodont and gums bleeding reaches 8%, indicator supra and sub gingival calculus – 34% [9]. In the surveyed regions the share of patients with deep periodontal pockets is in limits of digital values (1-4%) [5].

Numerous researches showed that climate-geographical conditions of population's accommodation can influence on indicators of frequency and intensity of periodontal diseases. So, in the Volgograd region the prevalence of periodontal diseases is 37 and 57% at 12-year-old children and 15-year-old teenagers, Chita region - 46 and 62%, the Republic of Sakha (Yakutia) and the Kemerovo region 89 and 84% at 15-year-old teenagers [33, 36]. Meanwhile, 15-year-old children of Armenia 73% of frequency of pathological processes of periodontal tissues where the quantity of the affected sextants for the last period has grown 3 times up [15].

Climatic conditions of the Northern region are characterized by the long periods of low temperature, long snow cover, sharp differences of atmospheric pressure, ultraviolet deficiency, close permafrost layer, essential strain of body functions in living conditions adaptation, reflected in functional dislocations of various organs and systems, including dentoalveolar system [3, 10, 23, 28, 29, 32]. Children of the high latitudes living in such conditions have signs of inflammation of the regional periodont at school age. So, at 7-year-old children the prevalence of periodontal diseases averages 39%, then with the age the indicator augmentation tendency reaches the level of 84% by 14 years old. There are, usually, gingivitis, more seldom periodontal diseases of mild, rare moderate severity revealed. Meanwhile among adult population, including elderly people the prevalence of periodontal diseases averages 90% where more expressed inflammatory and destructive processes of periodontal tissues promoting loss of teeth. At the same time at the population living in Subpolar and Arctic areas of the North, the frequency of periodontal diseases reaches maximum values and average indicator reaches the level of 96% [31, 32].

The researches have established that the clinical course of periodontal diseases has the certain patterns due to age aspects. Thus, at young age the pathology of periodontal tissues is most often of mild severity, rarer than average, rarer than severity level. At the senior age groups the expressed inflammatory and destructive processes are more often and less changes of metabolic and dystrophic process [32]. The complex clinical-epidemiological research for the last period in Russia characterizes that more than a third of children and teenagers have signs of periodontal tissues lesions. With the age the prevalence with inflammatory periodontal diseases fluctuates from 80 to 100% where severe forms are often examined. At the same time the negative tendency of augmentation of prevalence of periodontal diseases among adult population is traced [36].

Undoubted impact on the course of pathological processes in periodontal tissues occurs in the internal organs. Often, somatic diseases are the cause of the inflammatory and destructive phenomena in oral cavity mucosa [2, 34, 35].

High level of prevalence of periodontal diseases among various groups of the population, demanding long and difficult complex therapy causes relevance of their problems in clinical odontology [26]. Quite often the treatment of periodontal disease of the expressed inflammatory and destructive character can take several years, and in certain cases it continues during all life. On the other hand a desire of the patient and dentist to gain concrete clinical effect without injury of functional activity of dentoalveolar system [27] becomes clear.

Due to V.A. Kozhokeeva and et al. data [13] for the last period significant growth in patients’ visits with periodontal diseases testified a negative tendency of their prevalence. From the same positions it is possible to explain the high level of teeth loss in patients of old and senile age concerning periodontal diseases, especially of inflammatory and destructive processes [8, 30, 41].

CONCLUSION

The results of our research characterize the prevalence of periodontal diseases which take the second place by frequency after caries of teeth. Meanwhile structural reactions of mucosa in ontogenesis, climatic- social and economic conditions and also dental service potential definitely influence on incidence [21, 43]. At the same time, according to prognosis, this trend will increase [4].

Thus, periodontal diseases are widespread pathologies which define both important medical and social problem. This situation urges complex research work referred to incidence decrease and improvement of dental service and also medical-social rehabilitation of the patients.

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