Anthropometric Indicators of Advanced Children with Natural and Artificial Nutrition

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ABSTRACT

The study of the growth, development and condition of the facial skeleton of a modern child can be a theoretical and methodological basis for the development and improvement of anthropometric methods of diagnosis and reconstruction in medicine, substantiation of new principles of prevention and treatment of vertebral anomalies and traumatological diseases. In the modern concept of orthopedic treatment, the main task is to achieve the desired results, taking into account individuality

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With increasing age, various changes occur in the child's body, in healthy children of the I and II childhood periods, taking into account the type of feeding, which are associated with the climatic and geographical features of the region of residence, the nature of nutrition and the change of milk teeth to permanent ones. It has been established that the most significant increase in the frequency of health and developmental disorders, including pathology among the younger generation occurs in the I and II periods of childhood. In the years of Independence in Uzbekistan, the process of transforming the health system has been given the status of a state policy. Certain successes have been achieved in protecting the health of the population, reducing diseases of various ages, including the first and second childhood.

At the same time, there were some problems in the healthcare system. Among them, the study of anthropometric features in children who were artificially and naturally fed in infancy was important. The action strategy for the five priority areas of development of the Republic of Uzbekistan for 2017-2021 states "further implementation of a set of measures to strengthen family health, protect motherhood and childhood, expand quality medical care for mothers and children, provide them with specialized and high-tech medical care, reduce child mortality." In this regard, strengthening the health of the population and reducing the factors contributing to violations of morphometric characteristics in various pathologies that were artificially and naturally fed in infancy is important.

At the global level, the compilation of standards and standards for the physical development of the children's population makes it possible to create objective anthropological and environmental monitoring, which reflects the vital activity of children and the impact of numerous external factors. Knowledge of taking into account the proportions of the face is the key to success in various medical manipulations, including the traumatology area. The study of the growth, development and condition of the facial skeleton of a modern child can be a theoretical and methodological basis for the development and improvement of anthropometric methods of diagnosis and reconstruction in medicine, substantiation of new principles of prevention and treatment of

vertebral anomalies and traumatological diseases. In the modern concept of orthopedic treatment, the main task is to achieve the desired results, taking into account individuality. The implementation of the above aspects, the development of criteria and the improvement of prognostic approaches to diagnosis determines the relevance of this problem. All of the above remains a priority area of scientific research.

The problem of time variability of anthropometric features of children of the I and II childhood periods, taking into account the type of feeding – artificial or natural in infancy, is still relevant, and the factors affecting the development of this anatomical area have not been fully studied. It is known that the physical development of children is noticeably influenced by the peculiarities of the climate, living conditions, daily routine, the nature of nutrition, as well as past illnesses. The pace of physical development is also influenced by hereditary factors, the type of constitution, the intensity of metabolism, the endocrine background of the body, the activity of the supporting motor system. Anthropometric indicators, being a multifactorial process in different age periods, largely depend on climatic and ecological factors. One of the criteria for the health indicators of the child population is physical health. Assessment of the state of physical development is impossible without the data of anthropometric indicators of various age groups.

Most of the works devoted to this topic were limited to measurements of height and body weight. A full–fledged comprehensive study of morphometric parameters characterizing the physical development of the child population, especially the anthropometric parameters of the I and II periods of childhood, taking into account the type of feeding - artificial or natural in infancy, is not sufficiently illuminated. The study of the proportional development of the human body at the main age stages will reveal the patterns of human ontogenesis as a biological species. The ideas of studying the age and sexual dynamics of anthropometric features from the position of proportional similarity to definitive sizes remain problematic.

Therefore, it is of great importance for medicine and pedagogy to compile standards for physical development and puberty of children from different regions. The developed standards require periodic updating in connection with the process of acceleration and somatic development of the child. Etiological factors can affect different stages of growth and development of the child's body, anthropometric measurements of parameters throughout growth and the supporting motor system. Violations allowed during artificial feeding of a child can cause anomalies of the musculoskeletal system, especially in the spinal column. It should be emphasized that there is currently little work on the comparative study of the anthropometric parameters of the musculoskeletal region of children in the I and II periods of childhood who were naturally and artificially fed in infancy.

Along with the study of anthropometric data to create standards, a study organized by WHO studied the timing of the appearance of children's basic motor skills - the ability to sit down, crawl, stand and walk independently with and without support. According to the results of this study, the growth and development of motor skills in a healthy population do not depend on each other. The analysis revealed statistically significant differences in the age of occurrence of individual motor skills between the study sites. Since the children were healthy and had similar anthropometric data, these differences were regarded as normal variations. It is assumed that they reflect the cultural characteristics of the upbringing of children, but it is not possible to trace their ethnic and genetic causes. Based on the results of the study, motor development standards were developed that combined information obtained in different regions. Unlike physical growth, the difference between the sexes in motor development is insignificant, which made it possible to create a single standard for boys and girls.

Results: the obtained research results indicate the ongoing process of shaping and the onset of proportional harmony, regional

proportions expressing the proportionality of the segments of the musculoskeletal system, especially in the vertebrae. The obtained data can also be used in the educational process when teaching anatomy, histology, pathological anatomy, toxicology, as well as in scientific research, sanitary and hygienic institutions.

A study conducted at the initiative of the World Health Organization (WHO) has allowed the development of standards describing how healthy children should grow up who live in conditions that do not adversely affect growth. The inclusion of children from six geographically significantly different countries in the study makes it possible to demonstrate significant ethnic, genetic and cultural variability. These features of the study make it possible to use standards for evaluating children in different countries.

According to WHO experts, uniform standards for the growth of children should help assess and monitor the nutritional status of infants and young children around the world. The identification of a large number of underweight or overweight children in any population will indicate the presence of health risks and nutritional problems of the entire community, which will serve as a diagnostic tool for assessing unhealthy trends.

Conclusion: The obtained research results indicate the ongoing process of shaping and the onset of proportional harmony, regional proportions expressing the proportionality of the segments of the musculoskeletal system, especially in the vertebrae. Computer programs have been developed to determine normal growth by anthropometric parameters in children, as well as to evaluate morphometric parameters of children's vertebrae, depending on the type of feeding.

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