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EXPEDIENCY OF STUDYING THE ANATOMICAL STRUCTURE AND CT-DENSITY OF BONE TISSUE OF THE CORONOID AND CONDYLOID PROCESSES OF THE HUMAN MANDIBLE IN CASE OF TOOTH LOSS

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Modern research on human anatomy combines related disciplines - histology, cytology, embryology, comparative anatomy, physiology, biochemistry, biophysics, etc. (Oshurko A.P., Oliinyk I.Yu., 2019) and consider the form and structure of organs, systems and the human body as a whole as a product of heredity, which changes depending on certain conditions of the biological and social environment and the work performed, both in time (phyllo - and ontogenesis) and space (different geographical regions).

Diseases of the mandible, in particular the temporomandibular joints, are diagnosed in 37-67% of people who go to dentists (Novikov V. M., 2019), and occupy one of the leading places among diseases of the dental and maxillofacial system (Kulinchenko R.V., 2017; Volovar O.S. et al., 2019). A significant number of publications in scientific and practical professional publications are devoted to temporomandibular disorders, occlusion disorders, including those with partial tooth loss, and their interrelation, which is due to the high level of distribution of temporomandibular disorders among dental patients (Gavaleshko V. P et al., 2018). A lot of conflicting information about temporomandibular disorders, the frequent discrepancy between clinical findings and theoretical considerations concerning various pathological processes with localization in the processes of the lower jaw, indicates the need to continue comprehensive studies to obtain consistent interpretations of the pathogenesis of various temporomandibular disorders (Telishevskaya U.D., 2018; Makeev V.F. et al., 2019). The study aims to conduct a patent and information search with the analysis of scientific literature on the prospects for studying the gender and age features of the anatomical structure and CT – density of bone tissue of the coronoid and condyloid processes of the human lower jaw in case of tooth loss.

The scientific results of recent years published in the professional literature have raised the need for researchers to study the question of whether the components of the human lower jaw processes undergo morphological changes due to partial tooth loss, and if they do, what nature these changes are and what are their most significant manifestations in people of different ages and genders. This topicality lies in the vector of promising morphological research in the postnatal period of human ontogenesis to clarify several of tasks not solved at the moment: to study CT-bone density of various anatomical areas of the human lower jaw according to gender in the dynamics of the 1st period of adulthood without tooth loss; to find out the regularity of age dynamics CT-bone density of the cortical and trabecular layers of the lower jaw processes, due to anatomical dependence on tooth loss in males and females of the 1st and 2nd periods of adulthood; to determine the significance of the impact of tooth loss on anatomical structures (in particular, the coronoid and condyloid processes) of the human lower jaw in mature individuals of different genders.

So, the data presented in modern scientific literature and published in significant publications on the gender and age characteristics of changes in the bone tissue of the human lower jaw processes are fragmented and are based on a common biological foundation. Despite a large number of scientific papers devoted to the study of the structure of the maxillary system, there is a lack of comprehensive studies on the study of the structure and bone density of the coronoid and condyloid processes of the human lower jaw in the dynamics of postnatal ontogenesis in the case of tooth loss in individuals (women and men) of mature age. In our opinion, the results of such complex studies are not only of theoretical significance today but also important for clinical dentistry, since they can become a theoretical basis for developing new effective methods for the prevention and early diagnosis of pathological conditions of jaw bone tissue.