

56. STATISTICAL DATA AND IMAGING METHODS USED IN THE DIAGNOSIS OF OSTEOMYELITIS OF THE UPPER JAW



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Introduction. Osteomyelitis of the jaw is an infectious purulent-necrotic inflammatory disorder of the bone tissue that affects the periosteum and surrounding soft tissues in addition to the bone marrow and bone itself. It was discovered that the mandible exhibits a far higher frequency of the development of inflammatory bone disorders compared to the maxilla in connection to the anatomical and structural particularities. This prevalence is explained by the difference between the anatomical characteristics of the upper and lower jaw, such as the abundant vascularization of the maxilla, which ensures high resistance to infections, and the thin cortical plates that provide advantageous drainage.

Aim of study. To review the published literature for investigating the particularities of osteomyelitis of the upper jaw, to determine the etiological factors and the imaging methods of choice for establishing the diagnosis.

Methods and materials. Study of the contemporary bibliography and archive data within the IMSP Institute of Emergency Medicine, Department of Oral-Maxillo-Facial Surgery and Oral Implantology "Arsenie Guțan", during the years 2018—2023. The study included 137 patients (75 men and 62 women), aged 19-81, diagnosed with jaw osteomyelitis.

Results. The study indicates that odontogenic, posttraumatic, and toxic factors are mostly responsible for osteomyelitis development. The immunosuppression of the body is the result of the persistence of predisposing factors, such as concomitant diseases or harmful habits represented by excessive alcohol consumption or drug dependence. Systemic conditions that compromise an individual's immune system, such as diabetes, malnutrition, and chemotherapy use, are factors that can lead to osteomyelitis. In order to establish the diagnosis of osteomyelitis and the treatment plan, it is necessary to use both imaging and laboratory paraclinical methods. The most commonly used methods include panoramic radiography, computerized tomography, and magnetic resonance imaging, which allow for the determination of the infectious focus, localization, and involvement in relation to adjacent anatomical structures. It was found that 11 patients (8%) had upper jaw osteomyelitis and 126 patients (92%) had mandibular osteomyelitis. It was shown that odontogenic osteomyelitis, which affected 61 patients (44%), was the most prevalent form. Post-traumatic osteomyelitis affected 37 patients (27%), while osteomyelitis associated with bisphosphonates was less common, with three patients diagnosed (2%).

Conclusion. After statistical data analysis, it was concluded that osteomyelitis of the upper jaw is a rare occurrence in comparison to osteomyelitis at the mandibular level. It is considered that it results from a combination of etiological factors and the body's low immunoreactivity. The most popular ones for the upper jaw are magnetic resonance imaging and computed tomography, but panoramic radiography for the mandible.