



**SURGICAL TREATMENT OF DENTAL INFECTIONS IN THE MAXILLOFACIAL  
ZONE**

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**Abstract:** Phlegmon MFA sometimes presents as a disorder that impacts several homeostasis system pathways, including as immunity, detoxification, hemostasis, rheology, etc. The development of endogenous intoxication syndrome in purulent-inflammatory diseases is characterized by severe disorders of regulation and metabolism that lead to a violation of homeostasis, "damage" of protective systems and functions, and the formation of vicious autocatalytic circles that promote the maintenance and progression of end toxemia. This article discusses the treatment of odontogenic phlegmon in the maxillofacial area.

**Keywords:** odontogenic phlegmons of the maxillofacial region, clinic, treatment, population.

**Introduction.** The diagnosis and treatment of individuals with acute purulent-infectious illnesses of the craniofacial area are still relevant today. Despite improvements in current, acknowledged methods of identifying and treating this condition as well as improved dental care, the number of patients with odontogenic phlegmons continues to rise. According to a number of reports, patients with odontogenic phlegmons contain up to 60–70% of the beds in maxillofacial hospitals.

**Material and methods.** Maxillofacial phlegmon of odontogenic origin is becoming more common every year. The death rate rises to 90% when the infection spreads to the mediastinum and neck, and to 60% when the infection becomes more widespread and causes septic shock. Furthermore, there has been a consistent rise in the incidence of progressive pneumonia in recent years. These cases are frequently exacerbated by major illnesses such sepsis, brain abscess, thrombosis of the dura mater's cavernous sinus, contact mediasthenitis, and low-symptomatic atypical pneumonia.

Phlegmon MFA frequently presents as a condition affecting multiple pathways in the homeostasis system, including immunity, detoxification, hemostasis, rheology, etc. Gross disorders of regulation and metabolism that result in a violation of homeostasis, "disruption" of protective systems and functions, and the creation of vicious autocatalytic circles that foster the maintenance and advancement of endotoxiosis are the hallmarks of the development of endogenous intoxication syndrome in purulent-inflammatory diseases. The nature of the formation and severity of endogenous intoxication, on the one hand, depends on the intensity of free radical oxidation reactions, and on the other hand, the level of endotoxiosis determines the degree of imbalance of the pro-antioxidant system. Treatment of patients with inflammatory processes of the maxillofacial region and neck is based on complex surgical interventions and conservative measures. The problem of treating phlegmon of the throat and neck continues to be relevant at the present stage. We can say with full confidence that the question of pathogenetic processes occurring in a purulent wound and their treatment belongs to one of the old sections of medicine and has its own centuries-old history. There are a huge number of different methods and methods of influencing a purulent wound, but,



unfortunately, none of them fully satisfies modern surgeons. Every year, new methods of treating purulent wounds appear, both in the maxillofacial region and in other anatomical structures.

**Results.** Today, principles have been developed and put into effect for the care of patients with purulent inflammatory disorders of the throat and neck. These principles include several topics: necessary surgical drainage and opening of the purulent focus; antibacterial, detoxifying, and anti-inflammatory therapy; and homeostasis system correction. For this reason, it is pertinent, appropriate, and essential to look for contemporary, efficient local therapy techniques for purulent throat and neck wounds. Our observations and studies published in medical journals suggest that local anesthetic is not very useful for relieving maxillofacial phlegmon. Because of this and the cumulative experience gained over the last 6–7 years, all maxillofacial phlegmons are now opened under general anesthesia. Only general anesthesia makes it possible to guarantee the adequacy of anesthesia and the effectiveness of the maxillofacial surgeon.

Anesthetic aid for severe initial respiratory failure spilled purulent-inflammatory processes in the lower half of the face, as well as the development of complications such as odontogenic mediasthenitis, purulent-septic thrombophlebitis of the facial veins, present significant difficulties in choosing the type and method of anesthesia. To ensure that the risk of prescribed anesthesia does not exceed the operational risk, we carefully prepare patients for surgical interventions. The "anesthesia" risk can be minimized by selecting a customized general anesthesia plan for each patient through preoperative infusion therapy, joint examinations with anesthesiologists, and therapy consultations. The tissues must be handled cautiously during surgery to prevent overcompression and pinching. The infiltrate's length determines the length of the phlegmon. On the pathway to the infectious focus, the mucous membrane, skin, subcutaneous muscle, and fascia (aponeurosis) should be dissected, and the underlying tissues should be delaminated along the cellular spaces. Necrotized tissues in patients with putrefactivenecrotic phlegmons operate as a haven for microbes as well as a source of intoxication. In this context, a necrectomy—the surgical removal of crucial parts of necrosis—is recommended.

Drainage and wound therapy come to an end. Our usual choice for drains is either PVC or rubber pipes. In extreme cases, wound dialysis is used to rapidly eliminate microorganisms along with their decay products and poisons. Both fractional and continuous dialysis are used by me. In order to treat pterygoid-maxillary abscesses in particular, I also employ vacuum drainage. 30 % of instances involve applying supplementary stitches after the lesion has been cleaned.

**Discussion.** Currently, more and more often there are patients with inflammatory diseases of the maxillofacial region and neck, in which, despite surgical intervention and antibiotic therapy, it is not possible to stop the inflammatory process and achieve recovery in the early stages. Only for patients with reduced body reactivity, we add to the treatment of drugs that increase immunity. The most severe patients are given intravenous anti-staphylococcal hyperimmune plasma, staphylococcal toxoid, thymoline, cephalosporins, carbopenems (meropenem), etc. Usually, surgical treatment is supplemented by intramuscular and sometimes intravenous administration of antibiotics, which are still widely used in clinical practice, despite the increasing resistance of pyogenic microflora to them. There should be no standard in the use of antibiotics. Rational antibiotic therapy is the use of certain drugs, taking into account the individual sensitivity of the pathogen to them. Therefore, all patients are seeded from the wound to receive an antibiotic



gram, and after 10 days the seeding is repeated. Before receiving an antibiotic gram, we prescribe a broad-spectrum antibiotic or a combination of two antibiotics. Both sulfonamides and nitrofurans preparations, which we continue to widely use in our practice, have not lost their relevance. Patients with spilled purulent-inflammatory processes, accompanied by complications, decompensation of concomitant somatic pathology, are subject to treatment in the intensive care unit, where it is possible to conduct a faster and more complete examination of patients and intensive therapy aimed at maintaining circulatory and respiratory functions, as well as correcting changes caused by infectious and toxic damage. The processes of regional blood circulation and microcirculation, which are essential for the best possible oxygen consumption and metabolism, are first and foremost violated. It is best to transfuse medications such as hemodez, rheopolyglucin, alkalizing solution, etc. at the early stages of the inflammatory process since they do not raise blood viscosity and do not stay in the body for a long period. When the inflammatory process is stabilized, transfusion therapy is primarily aimed at increasing the nonspecific and specific reactivity of the body by introducing native gamma-globulin plasma, hyperimmune plasma, and the drugs mentioned above. According to our data, plasmapheresis provides good results in the complex treatment of patients with purulent-inflammatory diseases of the maxillofacial region and hemosorption. Symptoms of intoxication are removed, and the condition stabilizes faster. In the complex of therapeutic measures carried out in patients with acute inflammatory processes of the maxillofacial region with concomitant pathology, we always use the advice of specialists. This is especially true for patients with diabetes mellitus who are constantly under the supervision of an endocrinologist. One of the pressing issues in restorative medicine is the development of efficient treatments for inflammatory diseases, the emergence of severe complications that result in a decline in the body's reserve and functional capacities, as well as a violation of the morphological structures of organs with an irreversible decline in their function. Reducing the frequency of postoperative inflammatory problems in surgical dentistry and maxillofacial surgery patients can be achieved by administering preventative antibiotic therapy following surgical procedures.

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