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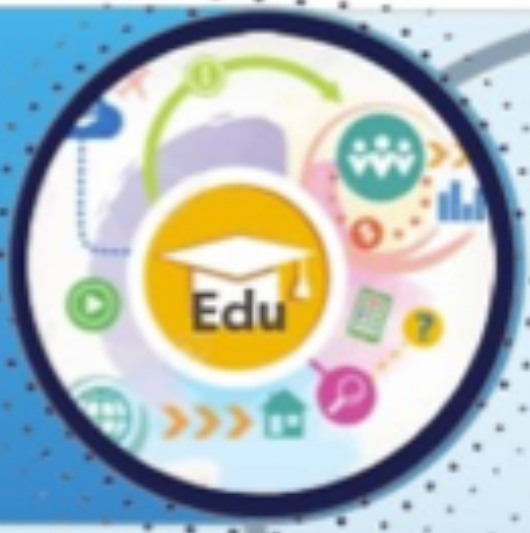

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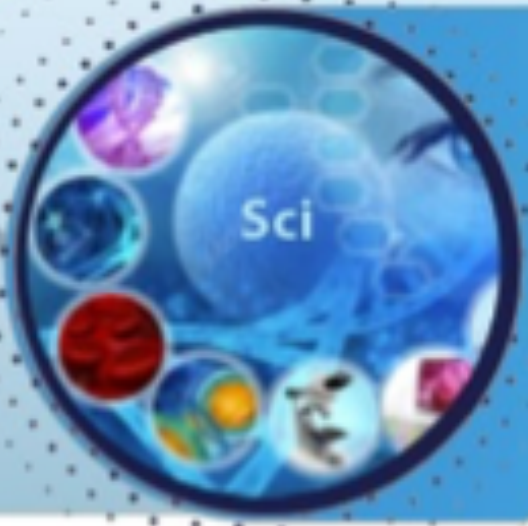

Issue 2 (1) | 2023

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ISSN: 2181-3175

Journal of Education & Scientific Medicine

ISSN 2181-3175

Tashkent Medical Academy

Review Article

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Etiology and Features of the Clinical Manifestation of Odontogenic Phlegmon

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ABSTRACT

Background. The review article presents information on the achievements in the field of research of the features of the etiology and clinical manifestation of odontogenic phlegmon. It has been shown that in recent years there has been a clear trend towards an increase in the virulent properties of microflora, and the emergence of antibiotic-resistant and even antibiotic-dependent strains. This is especially true of the causative agents of nosocomial infection, the pathogenetic role of which has recently increased significantly. Antibiotics, being powerful selective factors, contribute to the accumulation in the population of resistant forms of bacteria and the formation of drug-resistant species with altered pathogenic and other properties. In addition, the massive, uncontrolled use of modern antibacterial and anti-inflammatory drugs leads to a violation of the natural biological balance in the microbiocenosis and the dominance of opportunistic microorganisms - the main causative agents of purulent and purulent-necrotic inflammatory processes of the soft tissues of the face and neck. The interest of researchers in the biological properties of microorganisms, namely in the persistence factors that determine the course of the infectious process, remains unclear. The relationship between the persistent properties of bacterial pathogens and the dynamics of the species composition of the causative agents of odontogenic phlegmon remains unclear; the state of the persistence factors of microorganisms that form bacterial associations in the foci of surgical infection has not been studied. There is a need to improve microbiological diagnostics atypically current purulent-inflammatory diseases, to establish the main pathogens, to determine the factors of persistence of microorganisms, which will allow to find new solutions, both for the diagnosis and for predicting the course of odontogenic inflammatory diseases.

Keywords: Odontogenic phlegmon, phlegmon of the maxillofacial region, etiology, pathogenesis, clinical manifestation

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Diagnosis and treatment of purulent-inflammatory diseases of the maxillofacial region are currently one of the most pressing problems. This is evidenced by many scientific publications, conferences, symposia, and congresses devoted to these issues. There has been a significant increase in the number of purulent-inflammatory diseases of the maxillofacial region in the last decade. According to several authors, inflammatory diseases of the face and neck make up 10% to 30% of surgical patients who go to dental clinics, and about 50-60% of patients hospitalized in specialized dental hospitals [4,7]. Among them, the greatest danger to the health and life of patients is phlegmons of the maxillofacial region [16].

In recent years, the clinical course of odontogenic purulent-inflammatory diseases has changed significantly. On the one hand, there was a significant shift in the structure of morbidity towards the predominance of phlegmon. Progressive, including fulminant forms of purulent-inflammatory processes that spread to several cellular spaces, began to occur more often [5,10,13]. The number of severe complications of purulent-inflammatory diseases of the face and neck has increased, such as acute sepsis, toxic-infectious shock, septic meningoencephalitis, brain abscess, cerebral sinus thrombosis, arrosive bleeding, mediastinitis, septic endo- and myocarditis, which pose a threat to the life of patients [1,6,11].

On the other hand, the number of sluggish and chronic forms of purulent diseases that are difficult to treat has increased. This is confirmed by the analysis of the extensive literature over the past ten years [2,8,12,17].

Based on this, the duration and cost of treatment, the duration of disability, disability and increase in mortality rates have increased significantly [18].

Thus, this problem has not only medical but also important socio-economic significance.

According to D. Richardson et al. [44] Up to 98% of the phlegmon of the face and neck is of an odontogenic nature. Only in 4-10% of cases microorganisms can penetrate by somatogenic, rhinogenic, dermatogenic, lymphogenous and hematogenous routes. At the same time, in the emergence and development of phlegmon in the maxillofacial region, great importance has recently been given to non-spore-forming anaerobic bacteria and aerobes [9,29].

According to J. Grandis et al., [47] Odontogenic infection occurs with a predominance of anaerobes and the involvement in the pathological process of an ecosystem that reflects microorganisms of the normal flora of the oral cavity. At the same time, in the formed foci of infection, it is determined in unusually high concentrations. J. Williams [55] in the analysis of purulent foci of the maxillofacial region showed that in 86% of the observation's representatives of the normal oral microflora predominate.

Microorganisms in the oral cavity are a well-formed microbiocenosis, with a stable qualitative and quantitative composition and with complicated caries, periodontitis is the cause of the development of odontogenic purulent diseases with localization of the process in the soft tissues of the face and neck [52]. It is known that in healthy people up to 200 species of bacteria are sown from the oral cavity, saliva contains 1011-10 12 in 1 ml of facultative and obligate anaerobic bacteria, while the ratio of aerobic species to anaerobic is 1: 10 [54]. Such a rich microflora of the oral cavity in 26.7% of cases contributes to the development of transient bacteremia after tooth extraction, to the legalization of the socket and minor surgical interventions in the oral cavity [45].

In recent years, there has been a clear trend towards an increase in the virulent properties of microflora, and the emergence of antibiotic-resistant and even antibiotic-dependent strains. This is especially true of the causative agents of nosocomial infection, the pathogenetic role of which has recently grown significantly. Antibiotics, being powerful selective factors, contribute to the accumulation of resistant forms of bacteria in the population and the formation of drug-resistant species with altered pathogenic and other properties [37,42]. In addition, the massive, uncontrolled use of modern antibacterial and anti-inflammatory drugs leads to a violation of the natural biological balance in the microbiocenosis and the dominance of opportunistic microorganisms - the main causative agents of purulent and purulent-necrotic inflammatory processes of the soft tissues of the face and neck [23,28].

These circumstances have recently caused the increased interest of researchers in the problem of etiological agents in odontogenic inflammatory processes. At the same time, its complexity is determined by the diversity of microflora isolated from the purulent focus [30,32,56]. According to J. Zeitoun [57], abscesses and, especially, phlegmon can simultaneously release from 2 to 8 different aerobic and anaerobic microorganisms, which makes it very difficult to determine the dominant etiological agent.

The leading place in the etiology of odontogenic phlegmon, according to Y. Malenkova [48], is given to representatives of the pyogenic coccal flora, which is

confirmed not only by the detection of pathogens such as S. aureus, S. epidermidis, S. pyogenes, S. viridens but also by a high level of immunoglobulins determined in this category of patients. Thus, according to A. Gumenyuk [38] S. aureus accounts for up to 15% of isolated strains, which is significantly lower than the obligate-anaerobic group. According to H. Kim [26], the isolation of streptococci also does not exceed 15%. Similar results were obtained by I. A. Glotova [22] and T. Flynn [15], who secreted Staphylococcus aureus in 10- 17% of the observations.

At the same time, G. Shevtsova [14] noted a dominant role in the purulent focus of S. aureus, which was sown in 73% of patients, and in 42% of patients a monoculture of staphylococcus was detected. The isolation of other types of staphylococcus in abscesses and phlegmons - S. epidermidis, S. saprophytes, S. xylosus, S. haemin is, indicates S. V. Dmitrienko [3]. At the same time, C. Nord [36] notes the frequent isolation of microorganisms of the genus Neisseria in purulent-inflammatory diseases, especially in sluggish processes.

In serous exudative inflammation, green and non-hemolytic streptococci dominate the composition of bacterial communities. With reproduction in the focus of Staphylococcus aureus, enzymes of invasions are formed, S. pyogenes joins, which is associated with the development of the purulent nature of inflammation [35].

Several other researchers point to a change in the etiological structure of odontogenic inflammatory diseases. They revealed a decrease in the role of streptococcus, Staphylococcus aureus and a significant increase in the frequency of discharge from the purulent focus of epidermal staphylococcus, gram-negative rod-shaped forms and asporogenic anaerobic species of microorganisms [20,46,53].

However, it should be noted that the presence of staphylococci and streptococci in a purulent focus often does not correspond to the true microbiological picture, since these microorganisms belong to facultative anaerobes and the use of the technique of only aerobic culture leads to unreliable results. More objectives should be recognized as studies in which aerobic and anaerobic cultivation were combined.

Several researchers associate the most severe cases of phlegmon with the presence of obligate-anaerobic clostridial flora, in particular with the pathogens Cl. perfringens, Cl. septicum, etc. [51].

Of leading importance in the etiology of purulent-inflammatory diseases of the maxillofacial region are non-spore-forming gram-positive (pepto- and peptostreptococci) and gram-negative anaerobic cocci (veylonella), as well as a group of gram-negative (various types of bacteroids and fusobacteria) rods [39,50].

Usually, these bacteria and 50-90% of patients are found in associations with other anaerobic and aerobic flora [24].

Most non-spore-forming anaerobic bacteria are opportunistic microorganisms that form human normoflora. They provide colonization resistance of the microorganism, perform morphokinetic, detoxification, immunogenic, mutagenic/antimutagenic role, take part in the synthesis of bioactive substances, etc. At the same time, 70-80% of them are represented by bacteroids, porphyromonads, fusobacteria, pepto- and peptostreptococci, and veylonella.

More often than others, with odontogenic phlegmons, peptostreptococci, peptococci and bacteroids are recorded. These bacteria are not only most often isolated from purulent foci, but also, as a rule, dominate the structure of the association.

According to B. R. Khalilova [25], an important role in the etiology of purulent-inflammatory processes of odontogenic nature is played by fusobacteria and their associations with anaerobic cocci and bacteroids. Thus, the ability of some types of bacteroids to inhibit the growth of other microorganisms, and inhibit phagocytosis and digestion of aerobic bacteria in mixed infections have been established. The most pronounced inhibitory effect is found in B. gingivalis, which is due to their metabolic activity. There are data that bacteroids and anaerobic cocci dramatically increase the virulence of streptococci. At the same time, data on the role of bacteroids, fusobacteria, peptococcus and peptostreptococci in sluggish, atypical inflammatory diseases in the literature are scarce [27,31].

A frequent representative of the microflora of the oral cavity, which is released from inflammatory foci and purulent exudate, is Leptotrichia buccalis, although the role of this pathogen in the development of odontogenic infection remains debatable.

Other microorganisms, mainly gram-positive non-sporogonic eubacteria, propionibacteria, actinomycetes, and clostridia, are found in purulent-inflammatory diseases of the maxillofacial region much less often [21].

Data on the isolation of various obligate and optional anaerobic microorganisms in purulent-inflammatory diseases of the maxillofacial region cannot be considered as exhaustive evidence of their etiological role in the development of the process. According to Sh. A. Bobokulova [19] to determine the role of microorganisms in the de-

velopment of inflammatory disease, it is necessary to detect in them the factors of pathogenicity and aggression (enzymes, toxins, etc.) and signs of immunological restructuring in the patient's body [22].

According to modern concepts, the mechanisms for the implementation of the pathogenic genotype are adhesion, invasive, toxic and persistent properties of the microbe, which ultimately ensures the release of resident microflora beyond the ecological niche of habitat in the body and the colonization of fascial-cellular spaces, introduction into muscle tissue, etc. [31]

At the same time, in the literature, there are very rare works characterizing the pathogenicity of resident microflora in inflammatory diseases of the soft tissues of the face and neck. In bacteria living in the oral cavity and isolated from purulent foci, several mechanisms aimed at inactivating natural resistance factors have been described. Thus, in staphylococci and streptococci, the ability to inactivate immunoglobulin A, which goes according to the type of c-reception and is associated with the presence of protein A, was revealed, and antilysozyme activity was also detected, which is realized through competitive inhibition of the enzyme on lysozyme-resistant peptidoglycan [17].

The microflora of the oral cavity, in particular obligate-anaerobic bacteria and pathogenic cocci, is characterized by adhesins of various chemical natures. Radioisotope studies of the affinity of anaerobic bacteria for basement membrane proteins have shown that F. nucleated and some other Gram-negative bacteria have a pronounced ability to adhesion, while in Gram-positive bacteria it is much lower. The least pronounced adhesive properties are noted in propionobacteria. However, they can adhere to the substrate due to coaggregation with other bacteria that have greater adhesive properties [19].

Non-spore-forming anaerobic bacteria produce a large number of important virulence factors: various toxins, aggression enzymes, metabolites, etc. The universal virulence factor of grams of negative non-sporeogenic anaerobic bacteria is endotoxin released during the death and breakdown of microorganisms. It has a general toxic damaging effect on various organs and tissues [22].

Many types of bacteroids and fusobacteria produce such enzymes of aggression as collagenase, neuraminidase, deoxyribonuclease, heparinase, fibrinolysin, etc. For example, collagenase destroys identical connective tissue fibers and contributes to the spread of the purulent process. DNA-ase and heparinase - cause intravascular disorders due to increased blood clotting as a result of the destruction of heparin [12].

Fusobacteria and bacteroids, producing toxins, damage leukocytes, cause adhesion and lysis of erythrocytes, and volatile fatty acids, which produce the above bacteria, inhibit chemotaxis and oxygen-dependent cytotoxicity of leukocytes [45].

Opportunistic microorganisms can persist for a long time in the host organism, which is provided by several factors that contribute to reducing nonspecific resistance. Stable coexistence with a macroorganism is possible in the presence of certain biological properties of microorganisms, usually aimed at degrading the mechanisms of host protection, on the one hand, and defectivity of nonspecific resistance, on the other [51].

To protect the pathogen from bactericidal factors or phagocytes, the microbial cell has means of remote action, which are a large group of secreted bacterial substances aimed at inactivating the mechanisms of the body's immunity. The ability of bacteria to neutralize the factors of nonspecific resistance of a microorganism is designated as antilysozyme, anti interferon, anticomplementary activity and, thus, their role in the persistence of microorganisms is determined [41]. Using the host as a habitat, it is more profitable for the parasite to stay in it as long as possible without manifest manifestations, which is a variant of balanced pathogenicity [52].

The causative agents of odontogenic phlegmon, in the vast majority of cases, are endogenous opportunistic polymicrobial flora, where a significant place is occupied by bacteroids and anaerobic cocci.

Considering anaerobic infection as endogenous, J. Williams and A. Sefton [55] believe that it occurs when local and general resistance of the macroorganism decreases. The same point of view is confirmed by studies, which have established that normally antibodies against bacteroids occur in low titers. These data are evidence that in the development of odontogenic inflammatory processes, not only the microbial factor is important, but also the state of the immunological status of the patient.

A similar opinion was expressed by G. O. Bagaturiya [40] on the basis of immuno-bacteriological studies of patients with inflammatory diseases of the maxillofacial region. The author concluded that the quantitative and qualitative composition of the microflora of the inflammatory focus is determined by the state of the immunological reactivity of the body, and the immunological variant of the development of the disease.

Along with this, data are indicating a worsening of the clinical course of the inflammatory process in the presence of anaerobic pathogens. The relationship between the prevalence and severity of the course of

phlegmon of the maxillofacial region with the number and ratio of aerobic and anaerobic bacteria has been established. It has been shown that with phlegmons limited to one cellular space, the ratio of aerobic and anaerobic bacteria is the same, and when the process spreads to nearby tissues, the dominance of anaerobic bacteria was noted.

Another point of view is held by Y. Malenkova [33], who showed that in different forms of odontogenic purulent-inflammatory diseases of the face and neck, whether it is an abscess or phlegmon, spreading to several cellular spaces, there are no differences in the prevalence of anaerobes or aerobes. At the same time, the severity of the clinical course of the disease correlates with the concentration of bacteria in the purulent focus.

At the same time, when analyzing the literature on odontogenic processes, there is a certain contradiction that calls into question the provision of a more severe clinical course of diseases in the presence of anaerobes. For example, strict anaerobes (bacteroids, streptococci, peptostreptococci, fusobacteria, etc.) prevail in foci in chronic periodontitis, periodontitis, as well as periapical and submucosal abscesses. Pigment-forming anaerobes (B. gingivalis, B. intermedins, B. melaninogenicus) are often released during purulent processes that complicated tooth extraction, and pericoronitis.

So, the analysis of the literature on the etiology of purulent-inflammatory diseases showed that the data on the quantitative and qualitative composition of the microflora and the structure of its associations in this pathology is quite contradictory. The lack of information on the microbiology of sluggish, atypical odontogenic phlegmon, and the lack of modern research on these issues complicate their targeted clinical use in the etiopathogenetic therapy of patients and determine the relevance of work in this direction.

Centuries-old experience in the fight against infectious diseases indicates the resistance of parasitic systems, which allows pathogens to persist both in a single macroorganism and within one or more host populations. The main factors that ensure high resistance of parasitic systems to external and internal influences include the hierarchical organization and flexibility of bacterial systems, the heterogeneity of host and microbe populations, the reservation of pathogens, and the virulence of bacteria.

The structural flexibility of bacterial systems is ensured by the ecological plasticity of the microbe and its ability to use different hosts.

When the active circulation of the pathogen for some reason is difficult or temporarily excluded, the reservation ensures the preservation of the parasitic system. Such unfavorable periods the microorganism can experience in various reservation conditions - both in individual individuals of the hosts and in objects of the external environment, which are the source of nosocomial infection.

Microorganisms that colonize the macroorganism are constantly faced with the problems of survival in the adaptively changing environment of the host, where the latter controls the infection. These responses in the form of inflammation, phagocytosis, and synthesis of immunoglobulins are an obstacle for the pathogen, which for survival must improve its tactics, avoiding or overcoming these barriers.

Bacterial pathogens have learned to cope with the host response.

The most vulnerable target in bacteria is peptidoglycan. Therefore, any adaptive processes aimed at protecting the peptidoglycan structure of the cell wall should be considered as factors contributing to persistence. To survive in the body, a bacterial cell seeks to protect or "reset" its peptidoglycan using a number of techniques: mechanical protection by shielding the cell wall, antigenic mimicry, the formation of L-forms, the secretion of immunosuppression factors. Depending on the type of pathogen, the mechanisms of its persistence are different. The vast majority of bacterial pathogens produce secreted degradation factors or evade them, ensuring persistence in the body.

Of the secreted factors contributing to persistence, the following are known: antilysozyme activity, the ability of bacteria to inactivate the bactericidal component of human leukocyte interferon, anti-immunoglobulin activity, anticomplementary activity, antihiston activity. The anti lysozyme trait of microorganisms is necessary for bacteria to inactivate the lysozyme of the macroorganism to occupy and develop a new ecological niche. The new habitat promotes the selection of strains with anti lysozyme activity and the elimination of strains without this trait [34].

One of the factors of nonspecific anti-infective resistance is lysozyme, which penetrates the lesion already in the first minutes of aggression, providing a set of early measures to protect the microorganism from bacterial pathogens.

Conducting studies in clinical and experimental settings, a number of researchers have shown that bacterial pathogens, different in species and biological properties, but having antilysozymic activity, contribute to a decrease in the level of lysozyme in host cells [10,43,49].

In the works, it was shown that the prevalence and severity of the anti lysozyme trait in staphylococci, Escherichia coli, Proteus, and Klebsiella determines the possibility and duration of the course of surgical infection.

A relationship was established between the structure of the staphylococcus population based on antilysocimic activity and the nature of the course of the infectious process. The heterogeneity of the population in terms of the level of antilysozymic trait was more pronounced in strains with high initial antilysozymic activity. During the infectious process, the heterogeneity of the population in antilysozymic activity decreased, however, with the persistent form of infection, it persisted for a long time, indicating adaptive capabilities of the pathogen.

It is known that the protracted forms of the infectious process coincide with the reservation phase of the development of microbial populations, in which there is a decrease in the number of the pathogen and their virulence. The above facts indisputably indicate the important role of the persistent properties of microorganisms in the formation of resistance of parasitic systems, which is directly reflected in the peculiarities of the course of surgical infection [35].

Over the past decade, qualitative changes have occurred in the clinical course of phlegmon. There has been a steady increase in progressive phlegmon, which is dangerous to the health and life of patients that do not respond to traditional methods of treatment, which may be partly due to the widespread prevalence of disorders of nonspecific and immunological resistance of the body [2,34,51].

The incidence of progressive course of acute purulent-inflammatory diseases of the maxillofacial region ranges from 3 to 28%, and mortality with common phlegmons of the face and neck is from 28 to 50%, with intracranial complications, mediastinitis, sepsis - from 34 to 90% [1, 11, 34, 42].

At the same time, clinicians increasingly have to deal with the chronicity of acute purulent inflammatory processes, and torpid forms of purulent infection. This is expressed in the appearance of erased, atypical forms of the disease, prolonged, sluggish or hidden, i.e. atypical course, perversion and therefore difficult to predict the reaction of the functional systems of the body, more stretched repair periods, periodic relapses. All this makes it difficult to correctly and timely recognize inflammatory diseases of the maxillofacial region and leads to a large number of diagnostic, therapeutic and prognostic errors. According to several authors, atypical forms of inflammatory diseases of the maxillofacial region have been established in 13. 4-22% of patients. In turn, this leads to the development of a complicated, protracted clinical course of diseases, a significant slowdown in recovery processes [51].

With localized forms of the disease and the compensated state of life support systems, the anamnesis seems unburdened, the body temperature is normal or close to normal, and the hyperdynamic mode of blood circulation can be within the limits of physiological fluctuations [22].

With a significant degree of decompensation of the general functional capabilities of the body associated with intoxication or reflex effects on the functions of internal organs from the inflammatory focus, functional disorders of a local nature can be expressed quite clearly [32].

Thus, odontogenic phlegmons of the maxillofacial region acquire the features of an atypically current disease due to the discrepancy between the virulence of the infectious onset and the severity of the body's protective reactions, especially in cases where the patient took medications [44].

At the same time, the inflammatory process is accompanied by a slow suppuration of the infiltrate, and moderate pain (even during the period of the most pronounced inflammation, the local tissue reaction remains reduced and palpation of the infiltrate does not cause acute pain), a tendency to the chronicity of the process. Weakly pronounced reparative reactions of tissues favor the long-term stay of pathogenic microbes in the focus of inflammation [22,39,50].

Odontogenic phlegmons of the maxillofacial region are accompanied by endogenous intoxication of varying severity. It is a consequence of the effect of the primary etiological factor of the disease on the patient's body. Therefore, bacterial endo- and exotoxins are considered the main inducers of intoxication.

The degree of intoxication in phlegmons of maxillofacial localization is extremely variable and is associated with the localization and prevalence of the inflammatory process, the nature of the microflora, the age of the patient, concomitant diseases and reactivity of the body.

In patients with atypical forms of inflammatory diseases, metabolic mechanisms involving the homeostasis system are already adapted to the high level of toxins in the body, therefore, after the first cycle of detoxification, there is again a rapid accumulation of toxins. In this case, traditional methods of treatment are insufficient, which indicates violations in the physiological detoxification system of the body.

The above manifestations of atypically current purulent-inflammatory diseases of the maxillofacial region dictate the need for a more in-depth clinical and laboratory study and the development of forecasting methods taking into account their pathogenetic characteristics.

CONCLUSION

Analyzing the data of the literature on modern aspects of the etiology, pathogenesis, clinic and treatment of phlegmon of the maxillofacial region, it can be concluded that the increase in the number of atypical forms of diseases is associated with inhibition of the immunological reactivity of the patient, changes in the qualitative and quantitative composition of the causative agents of purulent infection. In this regard, the interest of researchers in the biological properties of microorganisms, namely the persistence factors that determine the persistence factors that determine quality and quantitative composition of the causative agents of purulent infection has increased. In this regard, the interest of researchers in the biological properties of microorganisms, namely the persistence factors that determine the persistence factors that determine quality and quantitative composition of the causative agents of purulent infection has increased. the course of the infectious process. The relationship between the persistent properties of bacterial pathogens and the dynamics of the species composition of odontogenic phlegmon pathogens remains unclear; the state of the persistence factors of microorganisms that form bacterial associations in the foci of surgical infection has not been studied. There is a need to improve the microbiological diagnosis of atypically current purulent-inflammatory diseases, to establish the main pathogens, to determine the factors of persistence of microorganisms, which will make it possible to find new solutions, both for diagnosis and for predicting the course of odontogenic inflammatory diseases.

Consent for publication - The author agrees to open the publication

Availability of data and material - Available

Competing interests - No

Financing – Self

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ODONTOGEN FLEGMONALARNING ETIOLOGIYASI VA KLINIK NAMOYON BO'LISHINING XUSUSIYATLARI

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ABSTRAKT

Maqolada odontogen flegmonaning etiologiyasi va klinik ko'rinishi xususiyatlarini tadqiq etish sohasidagi yutuqlar to'g'risida ma'lumotlar keltirilgan. Ko'rsatildiki, so'nggi yillarda mikrofloraning virulent xossalarini ko'paytirishga nisbatan aniq tendentsiya, antibiotiklarga chidamli va hatto antibiotiklarga bog'liq shtammlarning paydo bo'lishidir. Bu, ayniqsa, nozokomial infektsiyaning sababchi agentlari, uning patogenetik roli yaqinda sezilarli darajada oshdi. Antibiotiklar, kuchli selektiv omillar bo'lib, bakteriyalarning chidamli shakllari populyatsiyasida to'planishiga va o'zgargan patogen va o'zgargan patogen va boshqa xossalari. Bundan tashqari, zamonaviy antibakterial va yallig'lanishga qarshi dorilarni ommaviy, nazoratsiz qo'llash mikrobiotsenozdagi tabiiy biologik muvozanatni buzilishiga va opportunistik mikroorganizmlarning hukmronligiga olib keladi - yuz va bo'yinning yumshoq to'qimalarining yiringli va yiringli-nekrotik yallig'lanish jarayonlarining asosiy sababchilari. Tadqiqotchilarning mikroorganizmlarning biologik xususiyatlariga bo'lgan qiziqishi, ya'ni infektsion jarayonning kechishini belgilovchi persistensiya omillariga, aniq emas. Bakterial patogenlarning davomli xususiyatlari bilan odontogen flegmonaning sababchi agentlarining tur tarkibi dinamikasi o'rtasidagi munosabatlar aniq emas. Xirurgik infektsiyaning fonida bakterial assotsiatsiyalarni tashkil etuvchi mikroorganizmlarning turg'unlik omillarining holati o'rganilmagan. Mikrobiologik diagnostikani yaxshilash zarurati mavjud atipik jihatdan joriy yiringli yallig'lanish kasalliklari, asosiy patogenlarni o'rnatish, mikroorganizmlarning qat'iyligi omillarini aniqlash, bu diagnostika uchun ham, odontogen yallig'lanish kasalliklarining kechishini bashorat qilish uchun ham yangi echimlarni topishga imkon beradi.

Tayanch iboralar: Odontogen flegmona, yuz-jag' flegmonasi, etiologiyasi, patogenezi, klinik ko'rinishi.

ЭТИОЛОГИЯ И ОСОБЕННОСТИ КЛИНИЧЕСКОГО ПРОЯВЛЕНИЯ ОДОНТОГЕННЫХ ФЛЕГМОН

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АБСТРАКТ

В обзорной статье представлены сведения о достижениях в области исследования особенностей этиологии и клинического проявления одонтогенных флегмон. Показано, что в последние годы четко обозначилась тенденция к усилению вирулентных свойств микрофлоры, появлению антибиотикорезистентных и даже антибиотико-зависимых штаммов. Особенно это касается возбудителей внутрибольничной инфекции, патогенетическая роль которых в последнее время значительно выросла. Антибиотики, являясь мощными селективными факторами, способствуют накоплению в популяции резистентных форм бактерий и формированию лекарственно-устойчивых видов с измененными патогенными и другими свойствами. Кроме того, массовое, бесконтрольное применение современных антибактериальных и противовоспалительных средств приводит к нарушению естественного биологического равновесия в микробиоценозе и доминированию условно-патогенных микроорганизмов - основных возбудителей гнойных и гнойно-некротических воспалительных процессов мягких тканей лица и шеи. Возрос интерес исследователей к биологическим свойствам микроорганизмов, а именно к факторам персистенции, определяющим течение инфекционного процесса. Остается не выясненной связь персистентных свойств бактериальных патогенов с динамикой видового состава возбудителей одонтогенных флегмон; не изучено состояние факторов персистенции микроорганизмов, образующих бактериальные ассоциации в очагах хирургической инфекции. Назрела необходимость улучшить микробиологическую диагностику атипично текущих гнойно-воспалительных заболеваний, установить основные патогены, определить факторы персистенции микроорганизмов, что позволит найти новые решения, как для диагностики, так и для прогнозирования течения одонтогенных воспалительных заболеваний.

Ключевые слова: Одонтогенная флегмона, флегмона челюстно-лицевой области, этиология, патогенез, клиническое проявление.