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INFLAMMATORY DISEASES OF THE FACIAL AREAS IN CHILDREN

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Abstract: Since children's bodies are still young, the inflammatory process in the face-jaw area quickly escalates. This not only has a negative impact on the general condition of the child, but can also cause the child's death. For this reason, in this article, the inflammatory diseases that occur in the face-jaw system of children, how they affect the child's body, what complications they cause, and treatment measures are briefly covered. The reasons for such a rapid development of inflammatory diseases in children are explained in detail. In addition, the types and classifications of inflammatory diseases in the face-jaw area in children were specially discussed

Keywords: chronic and acute inflammation, osteomyelitis, inflammation of soft tissues, odontogenic, osteogenic, abscess, phlegmon, pulpitis, peridontitis, microorganism toxins, structure of milk teeth, infection, recurrence of the disease

In children, caries and its complications (pulpitis, periodontitis), if not detected and treated, chronic periodontitis, which is attacked, causes osteomyelitis of the jaws or inflammation of the soft tissues around the jaws (periostitis, odontogenic, osteogenic abscess and phlegmon). Diseases caused by teeth are called odontogenic. Therefore, let's first talk about pulpitis and periodontitis from inflammatory diseases.

Inflammation of the dental pulp can be found in children of different ages. Pulp inflammation is 5-6 times more common in chewing teeth than in incisors. The main cause of pulpitis is the leakage of microbes and their toxins through the thin dentin layer and wide dentin canals into the pulp tissue due to untreated caries. In addition, pulp inflammation occurs due to chemical effects (when caries is treated), mechanical trauma (when teeth are broken, caries cavity is sharpened) and, in rare cases, microbes are brought from the source of infection to the pulp tissue through the blood.

In children's age, it occurs in milk and unformed permanent teeth

Pulpits have unique gator features that are not found in adults.

 \checkmark If there is a shallow cavity of caries in milk and unformed permanent teeth, inflammation of the pulp may occur. This is caused by thin dentin layer, low mineralization of dentin and width of dentin tubules.

 \checkmark Chronic pulpitis in children passes almost without complaints. Only in some cases, we find out from the patient's anamnesis that there was a complaint about temperature and mechanical effects.

 \checkmark Symptoms of purulent inflammation of the pulp in children were determined by pathomorphological methods in all pulps. The causative agents are staphylococci, the most aggressive of mixed infections. In this case, it can be noted that the immunogenesis process in children is weakened, the process has a wide range of color, cases of sensitization and auto-sensitization, and signs of severe poisoning.



 \checkmark In children's age, the inflammatory process spreads quickly in the pulp tissue.

This is caused by the age-related formation of pulp tissue. Children's dental pulp, unlike that of adults, has more cellular elements, the main amorphous substance, and less fibrous structures. The activity of the blood supply quickly leads to the beginning of the exudative process.

The width of the root canals, in most cases of the apical opening due to the lack of formation, exudate and microbes, which have the same structural structure as the pulp of the root canal tissue, ensure that their toxins quickly spread and pass to the periodontal tissue.

 \checkmark The above anatomic and physiological features cause the same pulp inflammation with different clinical signs at different ages of children. For example, the acute limited period of inflammation in milk teeth, in permanent teeth without formed roots is very short, almost without symptoms, in permanent teeth with formed roots, the acuteness of clinical symptoms does not differ from adults.

 \checkmark The general reaction of the child's body is diffuse pulp in inflammation, it can take a hyperergic tone, mainly in cases of exacerbation of chronic pulpitis. This, in turn, is related to the high reactivity of the child's organism, the underdevelopment of the periodontal tissue structure, the tendency to exudation, the underdevelopment of the central nervous system, the hormonal and general immune status, and the sensitization of the pulp tissue with microbes. In young children, this process is accompanied by an increase in temperature, headache, relaxation, falling asleep, the number of leukocytes, and the rate of erythrocyte sedimentation.

In children, chronic periodontitis usually occurs after acute periodontitis or as a primary chronic periodontitis due to inflammation and necrosis of the pulp, and in some cases prolonged mechanical microtraumas affecting the periodontal tissue (highly it occurs as a result of a broken filling, the habit of holding braces, pens and other objects between the teeth, improperly washed orthodontic appliances, etc.). Pulp tissue death due to acute mechanical trauma also causes chronic periodontal inflammation over time. Chronic infectious periodontitis in most cases passes as primary chronic periodontal inflammation.

Based on the specific anatomical, histological and physiological characteristics of the periodontium, pulp and tooth hard tissues in childhood, chronic periodontitis is characterized by a number of specific clinical features:

➢ Unlike adults, chronic granulating periodontitis in children is accompanied by chronic lymphadenitis and periosteal inflammation in most cases.

> In chronic periodontitis, pulp necrosis and the growth of the tissue of the growing area cause the growth of unformed roots to stop;

 \succ The granulation tissue that appears around the root of the milk tooth spreads to the follicle of the permanent tooth and disrupts its normal development;

➢ Various inflammatory processes can occur around the roots of multirooted teeth (granulation, fibrosis, granulomatosis);

 \succ Chronic periodontitis in deciduous and unformed permanent teeth is caused by the closure of the pulp cavity in teeth with a shallow carious cavity;

 \succ The granulating type of periodontitis mainly occurs in milk teeth, and pathological resorption of the roots is observed;

Granulating chronic periodontitis in young children is observed in almost all cases of gum tissue around existing teeth, compared to older teenage children;

 \succ In most cases, chronic periodontitis causes destruction of bone tissue in the area of bifurcation of tooth roots;

Chronic milk teeth periodontitis can cause various complications, depending on the inflammatory process and the level of intensity, depending on the length of time.

•Formation of permanent tooth buds stops due to necrosis of milk teeth due to chronic periodontitis, and it begins to separate into sequestrations and disintegrate. When milk teeth are removed, it is revealed that the alveolar cavity is filled with pus and there are permanent tooth sequestrations. Such a tooth is not suitable for removal.

•Chronic granulation inflammation of the periodontium of milk teeth causes early destruction of the cortical bone plate separating the permanent tooth bud and premature eruption of the permanent tooth. Such a score, in turn, disrupts the order of coming out in pairs and leads to deformation of the pricus of the tooth row. Such old teeth quickly undergo the caries process.

•Chronic granulation inflammatory process in periodontitis of milk teeth and regularly accumulated purulent exudate can displace the permanent tooth bud, change its position, rotate it around its axis. This causes the tooth to not come out on time, to break out from the side of the tongue or lung.

•The chronic inflammatory process around the root of milk teeth can ensure the retention of the permanent tooth bud in this area and its failure to come out.

•Chronic inflammation spreading from the root of the baby tooth to the bud of the permanent tooth leads to the formation of a root cyst covering the bud of the permanent tooth.

In children, the acute inflammatory process in periodontitis of milk teeth spreads to the bone and surrounding soft tissues in a short period of time.

Acute periostitis usually occurs with acute lymphadenitis, acute osteomyelitis with periostitis, abscess and phlegmon. In order to clearly convey this dynamic process to the reader, inflammatory diseases around the jaw are written as a separate topic.

The development and course of inflammatory diseases in children have their own characteristics, and we will give a brief description of them below. The tooth causes the development of odontogenic inflammatory diseases. The crown part of the causative tooth is partially or completely eroded, the color of the preserved crown is changed, the percussion is painful, it moves, there are signs of inflammation in the gums.

Anatomical formed by soft tissues around the jaw in children the spaces are separated from each other by thin and non-dense thin fascia and aponeurosis, so the tissues cannot resist the spread of infection from one area to another;

Abscesses and phlegmons located deep around the chewing muscles limit the opening of the mouth, swallowing is painful, the act of breathing becomes difficult (phlegmons of the cavities of the side walls of the pharynx).

However, there are no changes in the patient's appearance (skin);



A child with acute odontogenic inflammatory disease (parents) reports toothache in recent days.

Odontogenic inflammatory diseases usually occur in young people (3-5 years old) with high intensity and complexity of caries, during the period of tooth replacement.

Inflammation in the body of children, as in adults diseases appear in three types:

hyperergic - general reactions prevail over the local symptoms of the disease;

hypoergic - general reactions and local signs of inflammation are not significantly manifested.

The development and clinical course of non-odontogenic inflammatory diseases in children is related to their structure and functional state of facial soft tissues.

Non-odontogenic diseases mean inflammation that does not involve teeth in their development. Usually the teeth are intact (healthy). Infection develops through skin injuries (dermatogenic), oral mucosa (stomatogenic), nose (rhinogenic), tonsillogenic or ear diseases (otogenic).

Development of non-odontogenic inflammatory diseases in children and the course depends on the structural characteristics and functional state of the soft tissues of the face.

The younger the child, the thinner the skin, better supplied with blood, and the proliferative process is active.

The supply of blood to the soft tissues of the face compared to other parts of the body has a positive effect on the recovery from inflammatory diseases on the one hand (quick removal of toxins from the site of inflammation, good delivery of hormones, protective factors and oxygen), and on the other hand, a negative effect (spreading of infection with rapid patterns).

Since children's blood vessels are permeable and very sensitive to the aggression of infection, the signs of inflammation (swelling, redness, local injury) are more evident; The lymphatic system is functionally immature; Purulent foci form quickly (in 2-3 days); Inflammation is accompanied by severe pain; In cases where nonodontogenic abscesses and phlegmons are located on the surface, the shape of the face changes significantly due to the inflammatory infiltrate in the subcutaneous fat layer, the skin over the tumor becomes red and painful when palpated; Subcutaneous fat layer and muscles are loose and thin compared to aro kletchat; In the development of an acute inflammatory process in children, the general symptoms of the disease appear earlier than the local symptoms, and are manifested by an increase in body temperature, weakness, sleep and appetite disorders.

To assess the general condition of children with acute inflammatory process, it is divided into three levels, namely: "satisfactory", "moderate severity" and "severe" conditions.

Usually, there is no big problem in diagnosing abscesses and phlegmons with traditional symptoms. With acute and chronic inflammatory symptoms in recent clinical practice and literature. Transient tumors and blood diseases are more common.

Treatment.

As with all inflammatory processes, the treatment of infiltrates, initially begins with measures against etiopathogenetic factors. In the treatment of odontogenic inflammatory infiltrates, it is necessary to resolve the fate of the causative tooth.



General and local conservative methods are used in inpatient conditions. General treatment measures: broad-spectrum antibiotics, anti-inflammatory drugs, desensitizing and detoxifying drugs are administered by injection (intramuscular and intravenous). Exposure to laser rays to treat the local inflammatory process; ointment and heating bandages are used. Intensification of symptoms of acute inflammatory process and the appearance of a "like" (pus) foci in the area of the infiltrate is an indication for an incision. Operative wound is carried out based on the general principles of treatment of purulent wounds.

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