American Journal of Bioscience and Clinical Integrity
https://biojournals.us/index.php/AJBCI
ISSN: 2997-7347

Early and Late Complications in the Treatment of Chronic Forms of Periodontitis

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Received: 2024, 15, Dec
Accepted: 2024, 21, Dec
Published: 2025, 13, Jan

Annotation: Chronic periodontitis is a pathological condition that occurs as a result of prolonged inflammation of the periodontium, the connective tissue located around the root of the tooth. With chronic periodontitis, there is a destruction of the ligaments that hold the tooth in the gum. This is accompanied by painful sensations when pressed or exposed to hot or cold food, redness and swelling of the gums. The tooth becomes mobile, which can lead to its loss. Chronic periodontitis is one of the most common complications of caries, so it is important to undergo regular preventive examinations by a dentist.

Keywords: Types of chronic periodontitis, Causes of chronic periodontitis, Symptoms of chronic periodontitis, Diagnosis of chronic periodontitis, Treatment of chronic periodontitis, Prevention of chronic periodontitis.

Types of chronic periodontitis

chronic-periodontitis.jpgChronic periodontitis, according to the localization of the process, is divided into 2 types: apical (apical), when the inflammatory process is located at the apex of the root, and marginal (marginal), when the inflammation develops at the edge of the root. near the gum. According to the course, chronic periodontitis is divided into the following types:

Chronic granulating periodontitis - occurs due to the replacement of bone in the apical part of the root with young connective tissue (granulation tissue). As a result, bone destruction occurs in the area of the inflammatory focus. With frequent exacerbations of the disease, bone damage spreads

to new areas, which can lead to the formation of a fistula.

Chronic granulomatous periodontitis usually develops from granular periodontitis. Further proliferation of granulation tissue in the periapical region leads to the formation of a granuloma with a dense capsule. The granuloma has the appearance of a purulent "sac" with a diameter of less than 0.5 cm, which, with further development, leads to bone destruction, and as it grows, it turns into a cystogranuloma with a diameter of 0.5-1 cm, turning into a cyst, the size of which can exceed 1 cm.

Chronic fibrosing periodontitis - can occur spontaneously or as a result of treatment of the granular or granulomatous form. In this case, scarring of the inflammatory focus occurs, as a result of which the periodontal tissue is replaced by coarse connective tissue.

Today, it is customary to follow the most common classification of medical diagnoses - ICD-10, recommended by the World Health Organization. ICD-10 takes into account the form of the disease and the most common complications:

a. K04.5 Chronic apical periodontitis.

b. K04.6 Periapical abscess with cavity.

c. K04.5 Periapical abscess without cavity.

d. K04.5 Root cyst.

e. K04.5 Other and unspecified diseases of pulp and periapical tissues.

Causes of chronic periodontitis

Chronic periodontitis of the tooth develops as a result of exposure to factors of an infectious and non-infectious nature.

Infectious causes include the spread of microorganisms from chronic inflammatory foci to periodontal tissues. The development of the disease is caused by caries, inflammation in the gums, nasal sinuses, and palatine tonsils.

The cause of the development of infectious periodontitis is microorganisms that live in the oral cavity. The most common are streptococci, staphylococci and other microbes.

Non-infectious factors include:

traumatic - develops as a result of a blow to the tooth, biting hard objects (bone) during chewing, damage to a dental instrument, damage to incorrectly installed crowns or an excessive amount of filling;

toxic - is the result of the effect of decay products from infected pulp on periodontal tissues;

medicinal - due to the penetration of potent drugs into the periodontium from the root canal due to improper treatment tactics;

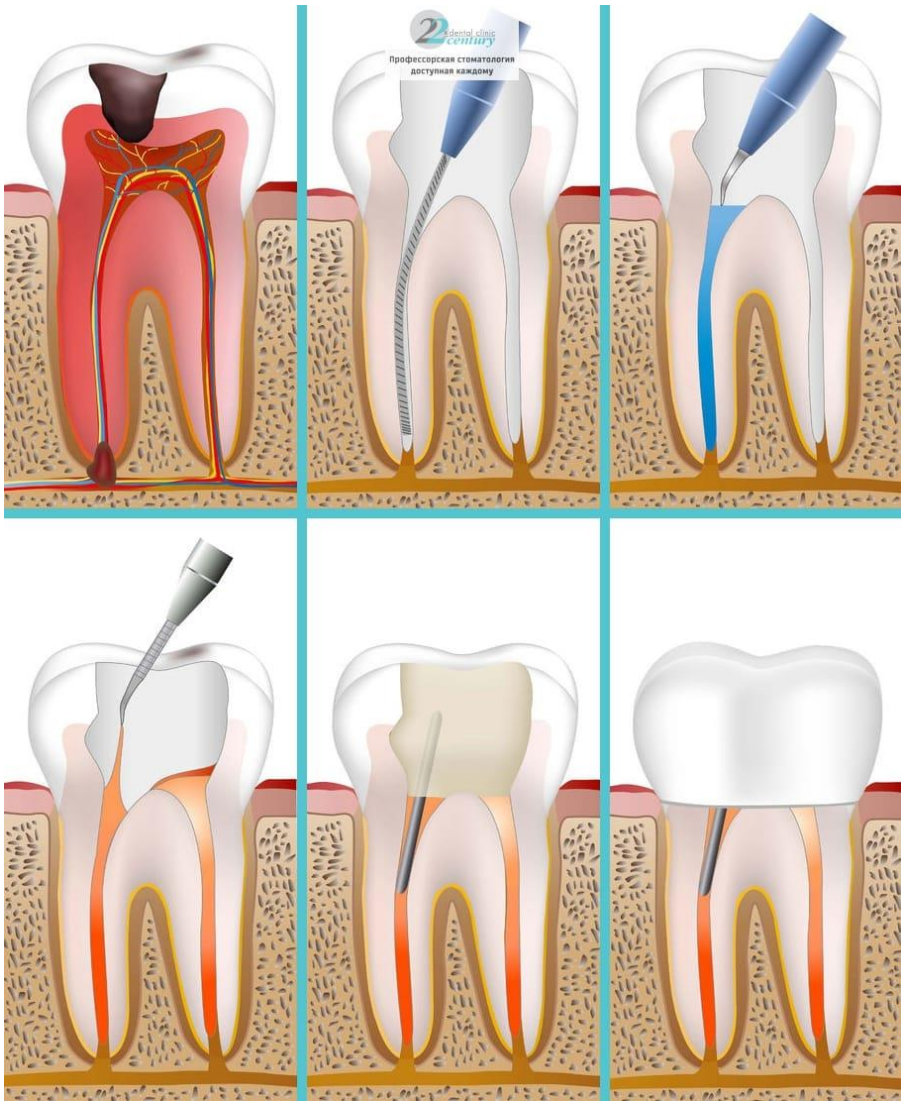
allergic - usually occurs in response to local anesthetics, antibiotics and other drugs used in concentrations that do not have a harmful effect on the tissues around the tooth.

Symptoms of chronic periodontitis

Chronic granular periodontitis has the most active course. Often, patients complain of aching pain when eating hard and hot food or chewing. There is redness and swelling of the gums. During exacerbations in the area of the diseased tooth, a purulent fistula, sometimes with an admixture of blood, may appear on the mucous membrane. When the inflammation subsides, the fistula heals with the formation of a scar.

Chronic granulomatous periodontitis - initially asymptomatic for a long time. As the process progresses, pain occurs, the color of the enamel changes, redness and swelling of the mucous membrane appear, and an effusion may develop (periostitis - inflammation of the periosteum of

the jaw). A significant increase in the diameter of the cyst sometimes leads to a fracture of the jaw bone.



Chronic fibrosing periodontitis - symptoms are mild. There may be no pain. The course of this form is more favorable. With the increase in inflammation, pain occurs when chewing, swelling, the tooth becomes mobile, the lymph nodes become enlarged and painful, signs of intoxication may be observed.

Clinical manifestations of chronic periodontitis are usually absent and are detected only during an X-ray examination or during an exacerbation of the disease. In this case, there is acute pain and swelling in the tooth area, a fistula may form, lymph nodes enlarge, and body temperature rises.

Chronic fibrous and chronic granulomatous periodontitis in children almost never occur. Their most common form is chronic granular periodontitis, which is asymptomatic. When examined by a doctor, mobility of teeth, discoloration, pain when pressed, deep caries and abscesses can be observed. Characteristic - the rapid development of the inflammatory process, which can spread to the roots of neighboring teeth or to the germs of the permanent tooth, which negatively affects the developing permanent tooth.

Important! Lack of treatment of chronic periodontitis leads to further development of purulent inflammation of the periosteum and jaw bones, sinuses and fatty tissue. Focal purulent inflammation of the brain and its membranes and sepsis are especially dangerous.

Diagnosis of chronic periodontitis

To make a diagnosis, the doctor analyzes the patient's complaints, determines the cause of the

pathology, examines the oral cavity, determines the presence of sensitivity when tapping the diseased tooth, palpates the adjacent tissues, determines the degree of its mobility and determines the presence of caries.

The diagnosis is confirmed by X-ray methods, which allow you to see the areas of tooth changes and the presence of carious lesions. These methods are:

radiovisiography - a modern diagnostic method performed using computer equipment, with high accuracy and low radiation dose;

Fistulography - used to study fistula tracts, in which a radiopaque substance is injected.

Since chronic periodontitis can be a consequence of pulpitis, electroodontometry is used as an additional research method, which allows assessing the condition of the pulp.

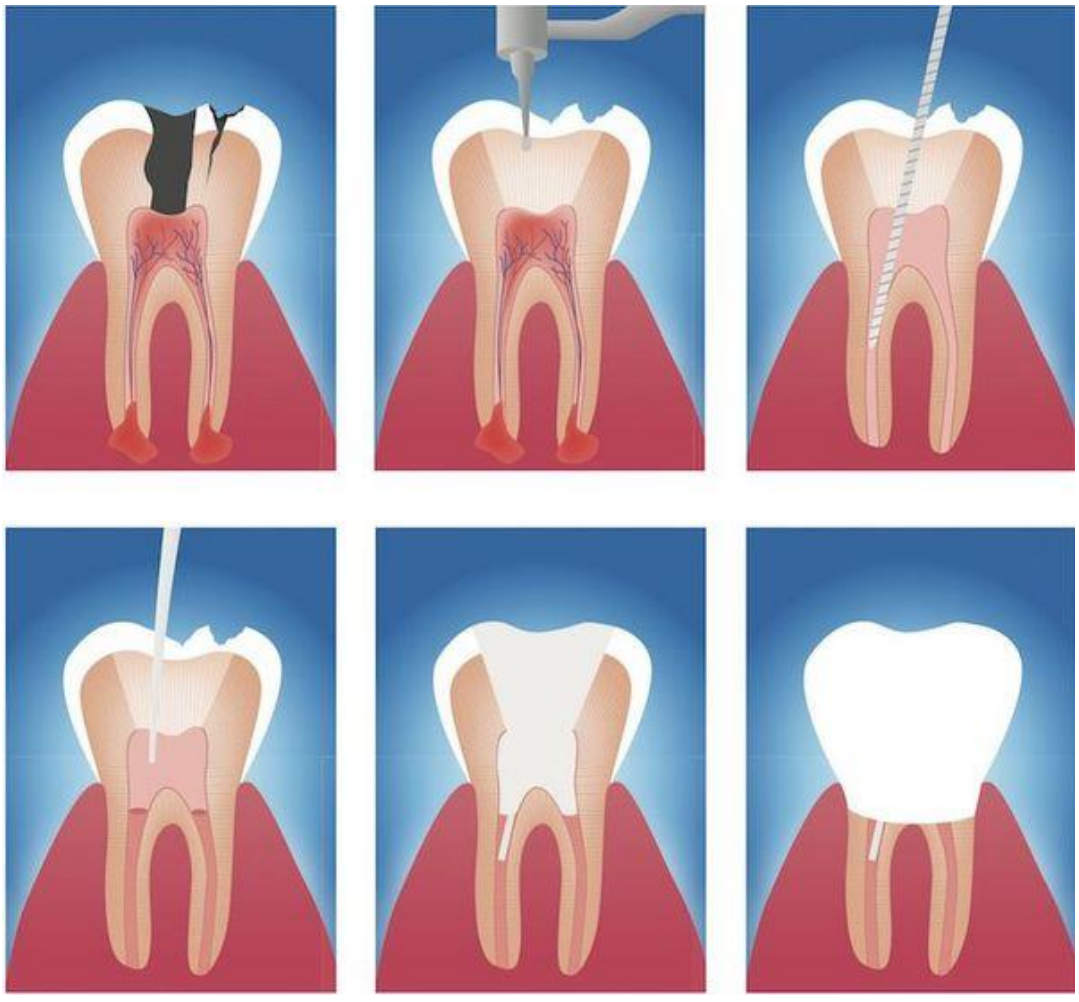
Treatment of chronic periodontitis

chronic-periodontitis3.jpgIf you consult a dentist in time, you can save the tooth, as well as prevent the spread of the inflammatory process to nearby tissues. The main principle of treatment is to eliminate the cause that led to the development of inflammation:

in case of traumatic periodontitis, a filling, crown, or other foreign body that causes tissue damage is removed;

with medication - if it causes inflammation, the drug is removed;

In case of infection, all dead tissue is excised.



Treatment methods for chronic forms of periodontitis can be conservative or surgical. Conservative treatment is aimed at gradually eliminating inflammation and activating healing and tissue regeneration in the upper part of the root.

Under local anesthesia, the tooth cavity is opened, all dead tissue is removed, and the treated cavity is washed with an antiseptic. Next, drugs with anti-inflammatory and antibacterial effects, as well as drugs that stimulate the formation of bone tissue, are applied in the form of a therapeutic dressing. After that, the cavity is hermetically sealed with a temporary filling. If necessary, the doctor prescribes antibacterial therapy. If pain occurs, painkillers are used.

At the next appointment, a few days later, the temporary filling is removed, the canals are washed with antiseptics, and filled with a medicated paste for 1-3 months.

In the third stage, a repeat X-ray examination is ordered, the canals are cleaned, antiseptics are applied, and a permanent filling is installed.

If the canals cannot be passed or the inflammation cannot be eliminated using conservative methods, surgical intervention is used. Preference is given to methods that allow the tooth to be saved - removal of the upper part of the root (resection), removal of one root of a multi-rooted tooth (hemisection), removal of the entire root (amputation), removal of the cyst (cystectomy).). In some cases, it may be necessary to remove the entire tooth. Treatment is carried out under local anesthesia.

Note! Due to the close proximity of the germs of permanent teeth and the high risk of their involvement in the inflammatory process, it is not advisable to treat temporary teeth with chronic periodontitis in children with conservative methods. Therefore, surgical treatment is often used - tooth extraction.

During the rehabilitation period, physiotherapy procedures are prescribed. The purpose of physiotherapy is to eliminate inflammation and stimulate the restoration of bone tissue. To eliminate the symptoms of periostitis and lymphadenitis, a UHF electric field is used; to reduce swelling - UHF, magnetic therapy, laser therapy, ultraviolet radiation; for severe pain - microwave therapy, darsonvalization; for the introduction of drugs into the dental cavity - electrophoresis, ultraphonophoresis.

After treatment, you should be under the supervision of a dentist for 2 years. If necessary, a control X-ray examination will be prescribed.

Prevention of chronic periodontitis

The main preventive measures are oral hygiene, timely removal of tartar, treatment of caries and gum disease. Regular visits to the dentist twice a year will help avoid serious problems and save your teeth.

To prevent the development of the disease in a child, it is very important to teach him from an early age to brush his teeth twice a day, use special dental floss and rinses. Do not overuse sweets. You should consult a dentist when the first complaints appear and come every 3 months for a preventive examination and professional oral hygiene.

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