

MODERN METHODS OF TREATMENT OF DEEP CARIES

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Abstract: Caries is the most common disease in the world. According to WHO, it is recorded in 99-100% of adults. Since there are no obvious symptoms in the early stages, it quickly turns into complications, which is one of the common causes of tooth loss. Axioma Dental clinic invites patients to treat deep dental caries.

Key words: Deep caries, origin, flow pattern, rate of development, Visual inspection methods.

What is deep caries?

This is a pathological process, in which there is an uncontrolled release of minerals from enamel and dentin, and then a cavity appears. The reason for its development is the vital activity of the symbiosis of bacteria and the release of acids that destroy the hard tissues of the tooth.

Caries is a gradual process, during which the following stages can be distinguished:

Spot. The first and only reversible stage. The pathological process is concentrated in the subsurface layer of enamel.

Superficial. If left untreated, caries develops, but is still accumulated in the enamel. There are no noticeable symptoms or pain, it is difficult to notice the changes in the tooth.

Average. The pathological process went beyond the enamel-dentine boundary. Therefore, the first painful sensations may appear in response to irritants.

Deep. The last stage of caries development, then complications. The pathological process destroyed enamel, dentin and approached the pulp - the "nerve" of the tooth. A thin layer of dentin separates the caries from the pulp. However, bacterial toxins can enter the "nerve" of the tooth and cause pathological changes accompanied by pain.

Types of deep caries

There are several types of deep caries. Classification is based on:

flow form;

speed of development;

place of localization.

Acute deep caries

It is characterized by a rapid course and transition to complications - pulpitis. During inspection, you can see a small cavity with caries, but a large cavity has already appeared under the hanging edges of the enamel. Accordingly, the probability of tooth wall fracture is high.

Chronic form

Caries develops slowly over the years. There is a large area of damage on the outside of the tooth and a much smaller area on the inside (under the enamel). Sometimes this form is called slow.

Primary, secondary and recurrent caries

Primary - is formed for the first time in a healthy tooth without previously carious cavities. A secondary tooth is formed on a previously treated tooth, but away from the original site of the lesion.

Repeated caries develops under the filling. Unfortunately, this form is often noted, and the reason is improperly installed fillings, their excessive reduction and micro-leaks. Therefore, even after filling, you should regularly visit the dentist for preventive examinations.

According to the location of the caries cavity

Caries have favorite places of formation. Accordingly, they distinguish the following:

Cracks are between the ridges formed in natural depressions on the surface of the chewing teeth. Here, the enamel is thicker, but hygienic care is difficult, and the cracks themselves can be closed, which leads to the accumulation of plaque.

Contact - between the teeth. Food debris and plaque often accumulate in this area, which is an excellent place for the growth of caries-causing bacteria.

The cervix is the most complex and dangerous form. In the area of the tooth neck, the enamel is anatomically thinner, so caries quickly turns into complications.

Symptoms

In some cases, even when there is a deep carious cavity, patients do not complain or deliberately ignore the symptoms. The following signs are characteristic for deep caries:

Pain due to irritation.

Pain develops when exposed to cold, hot, sour and sweet, but after the removal of the stimulus, it passes, but not immediately. Pain can have different characteristics - sharp, sharp. Another causative factor is pressure from food residues on the bottom of the carious cavity.

The presence of a deep cavity.

A cavity with deep caries is dark in color and filled with dead tissue.

Bad breath.

It is not always formed, but its appearance can be explained by the accumulation of food residues in the cavity, as well as by destroyed tissues.

Complications

Deep caries has many complications that develop in the absence of treatment or errors.

Pulpit

Inflammation of the "nerve" of the tooth. Caries-causing bacteria move further and move to the pulp, which causes inflammation. The main symptoms are severe pain that occurs independently, but increases under the influence of all kinds of irritation.

Pulpitis is characterized by an increase in pain at night, and it is absolutely impossible to eliminate it with painkillers. The only way to get rid of the pain is dental treatment. With timely treatment, all or part of the pulp can be kept alive.

Chips of the tooth walls, fracture of the crown

Caries weakens the tooth. Dentin (the main substance of the tooth) becomes softer or simply breaks down. The load of chewing causes the fracture of the thin walls of the tooth or even the fracture of the crown. Restoration of teeth requires serious treatment.

Diagnostics

The diagnosis is established based on the data of complaints, instrumental and visual examination methods. Many dental diseases have similar symptoms, but the treatment methods are different. In order to make a correct diagnosis, dentists strictly follow the examination algorithm:

Collection and investigation of complaints.

In what cases the pain occurs, what happened before it and whether it happened before. Next, the dentist examines the oral cavity and each tooth separately. Tests are conducted, for example, percussion (touch), palpation, etc.

Instrumental inspection methods.

In this case, the doctor uses a probe with a thin tip. This dental instrument is able to determine the softness of the tissues, assess the size of the lesion and its connection with the tooth cavity, that is, the pulp chamber. The information obtained is very important in making a diagnosis.

Visual inspection methods.

In order to make a diagnosis and exclude other pathologies with similar symptoms, it is necessary to study data from visual examination methods, for example, targeted X-ray images, visiography, etc.

Thermal diagnostics and EDI.

It allows to determine the condition of the pulp and the reaction of the tooth to thermal stimuli. Electroodontodiagnostics - the delivery of low-frequency currents - helps to assess the vitality of the pulp.

After determining the diagnosis and the depth of the lesion, as well as other conditions, a decision is made on the treatment tactics.

Methods of treatment of deep caries

The tactics depend on the initial condition, the form of the disease and the reaction of the pulp. The dentist tries to do everything to preserve the vitality and integrity of the pulp.

Caries treatment in one visit

It includes a permanent filling immediately after the treatment of the caries cavity. This is done only if there are appropriate indications, that is, if there is a sufficient thickness of the dentin insulating the pulp chamber and there is no risk of infection spreading to the pulp.

Treatment is carried out according to the following algorithm:

Anesthesia.

Decomposition of affected tissues.

Antiseptic treatment of caries cavity.

Constant filling.

Grinding the filling, grinding.

Restoring the anatomical integrity of the tooth

Depending on the level of tooth decay, dentists can offer several methods to restore its integrity:

Filling.

It is used most often and has its strict indicators when the tooth is destroyed by no more than 30%. The color of the filling material is selected separately.

Ceramic coating, coating.

It is a microprosthesis, similar to a filling, but with high strength and reliability. It is made in a dental laboratory using individual impressions and is often made of ceramic.

Crowns.

It is established in significant decay of the teeth. Its production allows to avoid the fracture of the crown part or the fracture of the tooth walls.

Toothache after deep caries treatment

Unpleasant feelings and even pain can last 1-2 days. This is a simple option and is the result of exposure to the tooth. If the unpleasant sensations last for a long time, the pain becomes unbearable, the tooth shakes - this is a reason to visit the doctor again.

Prevention of deep caries

The most reliable way to prevent deep caries is to visit the dentist every six months. Early forms of caries occur latently, symptoms are not expressed. Therefore, timely diagnosis and treatment is the only chance to intervene in the process and prevent the complications and development of caries.

Other preventative measures include:

strict adherence to personal hygiene rules;

adherence to the principles of proper nutrition;

regular professional oral hygiene.

Even if you have previously treated the teeth, you should undergo a complete examination and evaluate the strength of the fillings. And to detect hidden processes, do an orthopantomogram once a year - a panoramic image.

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