

**A MODERN VIEW ON THE DIAGNOSIS OF PERIODONTITIS.****Juraeva Ferangiz Hakimovna**

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**Annotation.** Periodontitis remains one of the most common problems in dental practice. Despite the apparent "ordinariness" of this disease, its diagnosis is not always easy, especially in the early stages. In recent years, approaches to the detection of periodontitis have changed significantly: More accurate imaging methods, digital technologies, and new ideas about the role of inflammatory processes have emerged. This article discusses modern methods of diagnosing periodontitis, their advantages and limitations, and highlights the importance of an integrated approach.

**Keywords:** periodontitis, diagnosis, CBCT, inflammation, dentistry, apical process

**Introduction.** Periodontitis is not just "advanced caries," as patients sometimes think. This is a full-fledged inflammatory process that affects the tissues around the root of the tooth and can lead to serious complications.

In practice, there are often situations when the patient does not make any pronounced complaints, but the pathological process is already developing. That is why the issue of diagnostics is coming to the fore today. The earlier the disease is detected, the higher the chance of preserving the tooth and avoiding difficult treatment.

he main part. Clinical examination: how it all starts

No matter how technology evolves, it all starts with a routine checkup. The patient's complaints, the nature of the pain, the reaction to biting — all this gives the doctor important information.

For example, in acute periodontitis, the patient often says that the tooth "seems to have grown" and it hurts to press it. But chronic forms can occur almost imperceptibly, and this makes them especially insidious.

X-ray: still relevant, but not perfect anymore

An ordinary X-ray remains the basic diagnostic method. It helps to see changes in bone tissue, the expansion of the periodontal fissure or foci of destruction.

But there is an important point: in the early stages, the changes may simply not be displayed. And here the limitations of classical diagnostics begin.

KLKT: when precision is needed

Cone beam computed tomography has become a real breakthrough. It allows you to see the tooth and surrounding tissues in three-dimensional format.

This is especially important in difficult cases where:

There are symptoms, but nothing is visible on the X-ray

. It is necessary to clarify the size of the lesion

. endodontic treatment is planned.

Simply put, CBCT helps to "see what was previously hidden."

Additional methods: don't underestimate them.

Electro-dental diagnostics and thermal tests may seem outdated, but they are still useful.

They help to understand whether the pulp is alive and distinguish periodontitis from pulpitis, which is crucial for choosing treatment.

New directions: biomarkers and technologies

Modern science goes even further. Substances that are released during inflammation, the so-called biomarkers, are currently being actively studied.

In the future, this may allow:

to detect the disease at the earliest stages  
 , evaluate the activity of the process  
 , and predict the outcome of treatment.

In addition, digital systems and artificial intelligence elements are increasingly being used to analyze images.

#### Discussion

Today it is already clear that one diagnostic method is not enough. Only a combination of clinical examination, instrumental methods and modern technologies gives an accurate result.

At the same time, it is important to remember that even the most modern technology will not replace the clinical thinking of a doctor. Technology is a tool, not a ready-made answer.

#### Conclusions:

The diagnosis of periodontitis has changed significantly in recent years and continues to evolve.

The main conclusions can be formulated as follows:

An integrated approach is needed

CBCT significantly improves diagnostic accuracy

Classical methods are still important,

as the future lies in personalized and early diagnosis.

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