

ERRORS AND COMPLICATIONS IN ORTHOPEDIC TREATMENT WITH REMOVABLE DENTURES: CLINICAL, DIAGNOSTIC AND PREVENTIVE ASPECTS

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Annotation. Orthopedic treatment with removable dentures remains one of the most common methods of rehabilitation for patients with partial and complete adentia. Despite the improvement of clinical and laboratory technologies, the frequency of errors and complications when using removable orthopedic structures remains high. The article analyzes the main clinical, laboratory, and medical-technical errors that occur at various stages of prosthetics, as well as related complications from the oral mucosa, supporting teeth, and temporomandibular joint. Special attention is paid to the issues of diagnosis, prevention and correction of complications, which makes it possible to improve the effectiveness of orthopedic treatment and the quality of life of patients.

Keywords: removable dentures, orthopedic dentistry, prosthetics errors, complications, oral mucosa, adaptation to dentures.

Introduction. Removable orthopedic structures are widely used in clinical practice in the treatment of patients with partial and complete secondary adentia, especially in the presence of general somatic contraindications to implantation or limited anatomical conditions. However, despite the relative simplicity of the design and accessibility of the method, orthopedic treatment with removable dentures is often accompanied by the development of complications of various kinds.

According to clinical observations, up to 60-70% of patients in the first months of using removable dentures complain of impaired fixation, pain, inflammatory changes in the mucous membrane and disorders of chewing function. This indicates the significant role of errors made at the stages of examination, planning, manufacturing and clinical provision of prostheses.

1. Classification of errors in orthopedic treatment with removable dentures.

1.1. Diagnostic errors.

Diagnostic errors include:

- incomplete assessment of the condition of the mucous membrane of the prosthetic bed;
- ignoring the degree of atrophy of the alveolar processes;
- insufficient analysis of occlusal relationships;
- lack of assessment of the functional state of the temporomandibular joint.

Underestimation of these factors leads to incorrect choice of the prosthesis design and errors in determining the prosthetic field.

1.2. Clinical errors.

Clinical errors most often occur at the stages of:

- taking impressions (deformity, inaccuracy of boundaries);
- determination of the central jaw ratio;
- formation of the occlusal plane;
- clinical packaging of the finished prosthesis.

Incorrect determination of bite height and central occlusion is one of the leading causes of functional complications.

1.3. Laboratory errors.

Laboratory errors include:

- inaccurate modeling of the prosthesis basis;
- incorrect placement of artificial teeth;
- violation of plastic polymerization technology;
- deformation of the base during processing and grinding.

These defects often cause injury to the mucous membrane and deterioration of the fixation of the prosthesis.

2. The main complications when using removable dentures.

2.1. Complications from the oral mucosa

The most common complications are:

- prosthetic stomatitis;
- focal and diffuse hyperemia of the mucous membrane;
- erosions and traumatic ulcers;
- hyperplasia of the mucous membrane.

These changes are often associated with an uneven distribution of the chewing load and a violation of the fit of the prosthesis base.

2.2. Complications from the supporting teeth.

With partial removable dentures, the following are observed:

- overload of the supporting teeth;
- the development of caries in the cervical region;
- inflammatory periodontal diseases;
- mobility of the supporting teeth.

The cause of these complications is most often the incorrect design of the clamping system and the lack of preliminary orthopedic preparation of the supporting teeth.

2.3. Functional complications.

Functional disorders include:

- pain and discomfort in the area of the masticatory muscles;
- symptoms of temporomandibular joint dysfunction;
- impaired speech and chewing.

Functional complications are closely related to errors in determining the interalveolar height and occlusal contacts.

3. Diagnosis and correction of errors and complications.

The diagnosis of complications should be comprehensive and include a clinical examination, occlusion analysis, assessment of the condition of the mucous membrane and control of the fit of the prosthesis base.

Correction of complications includes:

- rearrangement of the prosthesis;
- selective grinding of occlusal contacts;
- temporary refusal to use a prosthesis;
- anti-inflammatory therapy of the mucous membrane.

In some cases, a complete redesign of the orthopedic structure is required.

4. Prevention of errors in orthopedic treatment with removable dentures.

Prevention of complications is based on:

- careful diagnosis and treatment planning;
- strict adherence to clinical and laboratory stages;
- using individual spoons;
- dynamic monitoring of the patient during the adaptation period.

Teaching the patient the rules of use and hygiene of removable dentures also plays a key role in preventing complications.

Conclusions.

1. Errors in orthopedic treatment with removable dentures can occur at any stage of prosthetics.
2. The most common complications are inflammatory changes in the mucous membrane and functional disorders.
3. Comprehensive diagnosis and individual approach can reduce the incidence of complications.
4. Error prevention is the main condition for successful orthopedic treatment and long-term functioning of removable dentures.

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