

Organization of dental treatment and basic techniques to minimize the risk of manifestations of intolerance

dental materials

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All patients from the risk group (with a high probability of manifestations of intolerance to dental materials) require preliminary individual selection of dental materials, especially alloys.

When working with such patients, it is necessary to follow the following recommendations (many of them correspond to standard technological requirements, the strict implementation of which is especially important when treating patients at risk):

1. Do not replace materials recommended on the basis of testing, to others without the consent of the specialist who made their selection.

Different grades of titanium, for example, can vary significantly in terms of hardness and resistance to electrochemical corrosion processes.

2. Strictly adhere to the casting technology. (When casting should not sprues are added, it is important to ensure the necessary vacuum, time and temperature conditions for melting.)

3. Observe all conditions for the polymerization of plastics and composite materials.

4. To make a careful finishing of structures. A)

Finishing of metal surfaces:

- After casting or stamping, metal frameworks must be acid etched to dissolve oxide films.

- The surfaces of the cast structures must then be sandblasted.

- If then an oxide film is specially formed on the metal surface for the application of a non-metallic coating (cladding), then after its application, etching of the oxide films and repeated sandblasting of the inner metal surfaces (only for cast frames) should be performed. After such etching, a silane and bonding coating can be applied along the ceramic boundary as recommended for the restoration of the ceramic coating after chipping.

All exposed surfaces of metal dental structures must be carefully mechanically polished with using polishing pastes, including crown edges, wire and cast clasps (including their end parts).

B) Finishing of non-metallic surfaces. All non-metallic outer surfaces dental structures must also be carefully polished (unless immediately formed smooth enough in the process of making them).

C) Before fixing dental structures in the oral cavity with them

residues of polishing pastes must be carefully removed.

5. Orthopedic dental constructions from selected materials should first be fixed with temporary cement and left in such fixation for a period of two weeks to three months.

6. A) If a patient who, at the beginning of dental treatment there were manifestations of intolerance (dental materials and (or) structures in the oral cavity), some symptoms intolerances remain at the time of fixation of orthopedic or orthodontic structures (possibly from diffuse remnants of already removed dental structures), then their permanent fixation should not be performed without direct instructions from the Specialist (hereinafter

"Specialist" referred to specialist on individual selection dental materials and treatment Diffuse manifestations of their intolerance). Residues of dental materials are the products of their dissolution and diffusion in body fluids and tissues.

B) If, in the course of treatment, manifestations of intolerance have arisen after the installation of certain dental materials to the patient, he should be immediately referred to a Specialist (first of all, to the one who produced testing them for this patient).

7. Do not use untested anchor pins !!! (The least dangerous in terms of the risk of occurrence manifestations intolerance to titanium pins, but not in the situations specified at the end of Appendix 1) An alternative to metal anchor pins, which avoids the occurrence of electrochemical interactions with materials in the channels, are non-metallic pins (carbon, fiberglass), as well as cast pins and inlays from that the same alloy from which the crowns are made.

8. When carrying out electrophoresis, depophoresis in the oral cavity does not use preparations containing copper.

9. When removing or replacing the patient with old metal containing their structures should be given to the patient "for storage". They may be needed at the testing stage when deciding the question: "what caused the intolerance?" electropuncture technologies.

10. Include in the medical record the marks of all used for treatment dental materials, primarily alloys. When referring a patient to a specialist in testing dental materials, an extract should be given to him, where it would be indicated (if this is known or can be established): the brands of all alloys that are in his oral cavity, the localization of the anchor pins (and their brands), the brands of others. materials that previously caused manifestations of intolerance. Each oral depophoresis procedure performed on the patient using preparations containing copper must also be indicated in the discharge (area of the procedure and date).

11. If the specialist to whom the patient is referred for testing dental materials, some of their standard samples are missing,

of interest in a particular case, the dentist can provide such samples himself. These samples should be provided not by the initial components, but in the "final" "hardened" form (relevant for non-metals). They must be made in full compliance with the technology, have the necessary finishing (important, first of all, for alloys, not essential for cements, pastes for filling canals).

Individual selection of dental materials is also desirable for patients who are not at risk. If dental treatment is carried out to such a patient using individually selected (based on testing) materials, then all the requirements and recommendations formulated above will also be valid. Failure to do so increases the risk of manifestations of intolerance, even with the correct recommendations of a dental material testing specialist.

In accordance with [Markov BP, Kozin V.N., Dzhirikov YA, Malik M.The. and others. An integrated approach to the problem of individual intolerance to dental structures // Dentistry. - 2003. - No. 3. - P. 47-51] the risk group should include patients:

- 1) with a history of manifestations of dental intolerance materials;
- 2) with chronic inflammatory periodontal diseases and chronic diseases of the oral mucosa;
- 3) with allergic reactions and other diseases associated with impaired immunity (in particular, bronchial asthma), with sensations of discomfort upon contact with various materials at work and at home;
- 4) with severe pathology of the gastrointestinal tract, liver, gallbladder, pancreas;
- 5) with pathology of the endocrine system;
- 6) with diseases of the cardiovascular system;
- 7) with vegetative-vascular disorders and psychosomatic disorders;
- 8) with the presence of neoplasms or the risk of their occurrence;
- 9) with the presence of significant deposited diffuse residues dental alloys, as well as heavy metals from other sources.

Diffuse remnants of alloys can be deposited in various organs about tissues if the patient has alloys with significant electrochemical interaction in the oral cavity for a long time. In this regard, stamped-brazed stainless steel structures are always potentially dangerous. In the presence of other alloys in the oral cavity, anchor pins (unless they were specially selected on the basis of testing) and amalgam fillings, diffuse residues of which in significant quantities can accumulate in the tissues of the teeth and remain there for a long time after removal of their sources, can be no less dangerous.

Some types of amalgams can significantly diffuse into the surrounding bone tissue of the tooth, even if there are no other alloys in the patient's mouth.

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