

X. Stomatology Section

1. ACTUAL PRINCIPLES IN THE PREPARATION AND OBTURATION OF DENTAL CARIES

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Introduction. Dental caries continues to be the dental disease with the highest overall incidence. This aspect requires the study and continuous development of new methods for diagnosis, prevention and treatment of dental caries. The scientific and technological progress of the last decade has contributed to the improvement of the properties of existing adhesive systems and, eventually, to the improvement of the techniques used in the treatment of dental caries. Currently, doctors prefer modern methods for preparing carious cavities so as to conserve as much as possible healthy dental tissue. This fact corresponds to the high requirements of patients in cosmetic dental restorations, both functionally and physiognomically. The medical approach in the treatment of dental caries requires the application of the concept of minimally invasive surgical therapy, the internal and external contour of the preparation being influenced by the volume of the lesion.

Aim of study. Evaluation of aesthetic and functional preservation methods of caries-affected teeth and treated according to modern medical standards.

Methods and materials. In this study, 14 patients aged 20-45 years, including 6 women and 8 men, were examined and treated. After the clinical and paraclinical examination, at 2 patients the clinical diagnosis of superficial caries was established, at 11 patients the clinical diagnosis of moderate chronic caries was established and at one patient - deep caries. Class I, II and III carious cavities were diagnosed (according to the Black classification). Sable Seek caries indicator, Calcimol LC liner and Clearfil AP-X ES-2 light-curable nanohybrid composite was used to ensure an effective treatment. The therapeutic conduct based on the principles of the "Free design" technique for the preparation of carious cavities was used. The defect-oriented principle, the principle of less preparation, the principle „Keeping enamel without dentin support“ and the principle „Repair the restoration without a total change“.

Results. The patients who underwent the treatment of morpho-functional and aesthetic restoration of the caries-affected teeth, by the method of free design, with composite materials according to the newest technologies, presented satisfactory results at the dynamic monitoring stages.

Conclusion. The preparation of carious cavities based on the free design technique reduces the number of work steps, the duration of the operation, the possibility of further complications and meets current biomimetic medical standards.