



43. MODERN CONCEPTS ON THE CLINICAL ASPECTS OF THE CUNEIFORM DEFECT

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Introduction. The cuneiform defect is the most common non-carious lesion of hard dental tissue. It is usually located in the cervical region of the teeth and the vestibular surfaces of maxillary premolars. The geometry of the lesion is represented by a cone (from the Latin *cuneus* - wedge), this is where the name of the condition comes from. The lesion causes over time dentinal hypersensitivity, aesthetic discomfort and dystrophic pulp changes. Repeated exposure to stress leads to the increase in size of the defect.

Aim of study. Analysis of the particularities of the clinical appearance of the cuneiform defect according to the geometric shape of the lesion.

Methods and materials. The study included 13 patients with cuneiform defects in the limits of enamel and dentin, both in the upper and lower jaw. The wedge- or V-shaped lesions (less area of stress concentration under load) was identified in 4 patients and the U-shaped lesion (with a flattened tip - where the forces are dispersed) was identified in 9 patients. The analysis was based on the use of inspection, percussion and sensibility tests such as heat pulp testing (HPT) and cold pulp testing (CPT).

Results. According to the results, V-shaped lesions were associated with hypersensitivity, recently appeared aesthetic defects, jaw pain and temporomandibular joint (TMJ) noises. In the cases associated with U-shaped cuneiform defects, a long evolution of the lesions was observed and patients reported only aesthetic changes. Also, some of the patients claimed suffering of the gastrointestinal tract, such as acute gastritis episodes or gastro-intestinal reflux.

Conclusion. The geometric shape of the lesion plays an important role in the stress distribution to the teeth. U-shaped cuneiform defects are more frequently associated with a chronic evolution and erosive etiological factors. The V-shaped lesions are associated with an acute and rapid evolution, with pathological occlusal forces and muscle hyperfunction. These aspects are important in clinical practices because they guide the clinician to the right treatment tactics. Additionally, they offer the possibility to transform lesions with sharp geometry into rounded cavities, thus preventing further loss of dental tissue during the restoration.