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## Use of the gel “APA CARE” (“The Liquid Enamel”) in the treatment of enamel demineralization after orthodontic treatment

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**Background:** Today the bracket-system is the basic method of orthodontic treatment of disocclusion in patients with the formed constant occlusion. Orthodontic treatment takes long enough time and on the average it lasts 2-3 years depending on abnormality. Brackets, arcs, ligatures are retentional point for a cluster of the soft dental deposit, and also prevent an oral hygiene and natural self-cleaning of teeth. One of the basic complications in orthodontic treatment by bracket-system is demineralization of enamel. The demineralization sites more often occur around brackets, under locks, in cervical area, in proximal interdental contacts at high density of teeth.

**Purpose:** The purpose is to estimate remineralizing efficiency of the drug “APA CARE” (“The Liquid Enamel”).

**Materials & Methods:** 35 Kharkov patients, aged 19 – 25 years old, receiving orthodontic treatment by bracket-system from 9 months till 1 year were investigated. Among the examined patients, 13 people have revealed the nidal demineralization of enamel in cervical area of the lower and upper incisors and cuspids, in the field of the lower and upper molars. For differential diagnostics of initial caries with non-cariou lesions staining of teeth enamel of 2% aqueous solution of the methylene blue was used. All patients have undergone the professional tooth cleaning. Application of APA CARE (The Liquid Enamel) in home conditions was prescribed. It was recommended to carry out this procedure once a day after tooth cleaning, to apply paste on teeth and to sustain it within 3 minutes. After procedure it was advised not to rinse the mouth and to refrain from a food intake within an hour. Course of treatment lasted for 1 month. At an estimate of efficiency of treatment the following parameters were considered: area of the site of a demineralization, colour and sizes of a stain, luster of a surface. To estimate the processes of remineralization of teeth enamel the test of enamel resistance (TER-test) was carried out.

**Results & Discussion:** During the study it was noticed that the area of the sites of demineralization was decreased once or twice accompanied by clinical changes and there was a decrease in the visible part of a carious stain and the tooth enamel has gained a natural luster. The significant improvement of the indices characterizing fastness of teeth enamel to activity of acids was noted: according to resistance test (TER-test) indices  $54.6 \pm 2.6\%$  have decreased to  $34.7 \pm 1.8\%$ .

**Conclusions:** Thus, the gel APA CARE (The Liquid Enamel) is an effective remineralizing drug and can be recommended for prevention and treatment of the sites of demineralization of enamel in patients, receiving the treatment by bracket-system.

### Biography

Aleksey Komarov is currently studying in Kharkiv National Medical University, Department of Pediatric Dentistry, Children's Maxillofacial Surgery and Implantology, Kharkiv, Ukraine. He has published articles in the field of Dentistry.

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