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PROBLEMS AND SOLUTIONS**

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Preventive Medicine,  
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# INVESTIGATION THE CLEANSING EFFECT OF THE VERTICAL SCRUBBING TECHNIQUE AT TOOTHBRUSHING THE UPPER FRONTAL TEETH IN THE PERIOD OF MIXED DENTITION

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**Introduction.** Nowday it is known, that oral hygiene care is an effective mean of dental diseases prevention. Tooth brushing, flossing and mouth rinsing, when is performed properly, allow to support health of oral cavity in a different age. At the same time tooth brushing requires hand functions that are beyond the ability level of children of age 6 years and younger. As a rule, children younger than 10 years of age demonstrate low tooth brushing skills [1, p. 38]. They prefer distal type of grip and horizontal scrubbing technique [2, p. 213–219]. Such technique of oral hygiene care provides only partial contact with the surfaces of the teeth and therefore does not contribute to the complete their cleansing. As an example, the proportion of the areas that were brushed in eighty-seven subjects from 3 age groups (5, 11 and 18–22 yr) was 25, 50 and 67 percent, respectively. Besides this, more time was spent brushing the lower than the upper teeth, [3, p. 387]. The movements of the brush direct the plaque into the interdental spaces. It is necessary to pay attention on a physiological age-related aspect. The upper central incisors erupt earlier, in comparison with the lateral ones. Differences in a length and enlargement of gingival margin during eruptive process predispose the difficultness of plaque removal in this region. Therefore the area of frontal teeth in the period of mixed dentition needs special attention in an aspect of correct oral hygiene.

**The aim.** To investigate the cleansing effect of the vertical scrubbing technique at tooth brushing the upper frontal teeth in the period of mixed dentition.

**Materials and methods:** Patients aged 9 to 10 years, who usually used a horizontal cleansing technique were randomly assigned to one of two research groups. They have permanent central and lateral incisors on a different stage of eruption. The controlled tooth brushing was performed using the iodine containing solution. Participants were used vertical scrubbing technique, manual toothbrush, oblique grip in a first (basic) group and horizontal scrubbing technique, manual toothbrush, oblique grip in a second (control) group. At the beginning of the study, participants from the control group were asked to brush frontal teeth according to their conventional manner, making 10 horizontal scrubbing movements (right-left, right-left). From the other side, the participants from the basic group were personally instructed and used recommended technique. It was as follows: it is necessary to place the index finger on the head of the toothbrush, the other fingers hold her handle. The child keeps the brush in an upright position, making scrubbing movements from the gum to the tooth. The five brushing movements were done in an area of each tooth. The Rustogi Modified Navy Plaque Index was used for estimation of hygiene status before and after toothbrushing [4, p. 10-12].

**Results.** Sixty-four children took place in the investigation. The estimation of teeth condition in a control group identified the dental plaque partially in all areas. In a basic group the remnants were absent on a whole central portion of fully erupted teeth, and still present partially in “a”, “c”, “f”, “d”.

**Conclusion:** the results show that a vertical scrubbing technique, using for toothbrushing of the upper frontal teeth in the period of mixed dentition allows to improve their hygiene condition.

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