

IN THE PERSONS ON THE BACKGROUND OF APPLICATION OF BRACES

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Introduction. Alignment of the bite and overcoming defects of the the tooth row with the help of braces has long been a common practice in dentistry. However, according to recent studies, braces are not only not a panacea, but can also cause serious damage to teeth and increase the risk of inflammatory gum disease.

The purpose of the study. To investigate the condition and possible features of buccal epithelial cells of students who wear braces.

Materials and methods. Fifteen students were examined in the initial period of braces use. The control group was students who did not use braces or smoke. The buccal epithelium collection was carried out by taking the cells using a spatula from the inside of the cheek. The native material was stained with a 1% trypan blue solution. The morphological characteristics of the cells were evaluated, after 15-20 minutes, the percentage of dead cells with a damaged membrane was calculated, as they were stained with a bright blue dye and the cytotoxicity index was determined. Cells were quantified in the Goryaev counting chamber.

Results. By microscopy, it has been determined that the brace system worsens the condition of buccal epithelial cells: the cytotoxicity index was significantly higher against the background of the use of bercots and was on average 38% compared to the control group; in 4 people with the use of braces, the initial signs of epithelial keratinization were determined.

Among the cells of the buccal epithelium, cells with double nuclei appeared. The number of conglomerates in comparison with control increased, which is also a sign of a negative effect on the oral mucosa.

Conclusions. The direct negative effect of braces on the complex mechanism of the functioning of the oral mucosa, especially in the initial period of use, has been confirmed.

STUDY OF CYTOTOXIC EFFECT OF LISTERINE® ORAL MOUTHWASH ON BUCCAL EPITHELIAL CELLS

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Introduction. Buccal epithelial cells are a convenient, alternative object for screening assessment of the cytotoxic properties of oral hygiene and prophylactic products. Buccal epithelial cells are indirect contact with these hygiene-prophylactic agents. Due to the simplicity of the cell extraction process, the low invasiveness of the procedure, and the clear signs of cell death as an indicator of the toxic effect of the agent, this in vitro model has been chosen as appropriate.

The aim of the study. To investigate the possible toxicological effects of Listerine® oral mouthwash on the buccal epithelial cell model.

Materials and methods. The buccal epithelium collection was carried out from students of NFaU, both sexes without pathology by taking cells using a spatula from the inside of the cheek. The studies were performed 2 times: 1- before using of hygiene-prophylactic (input control), second - 1 week after using the product (twice a day, for 30 seconds). The resulting native material was stained with 1% trypan blue solution. The morphological characteristics of the cells were evaluated and, after 15-20 min, the percentage of dead cells with a damaged membrane which were stained with bright blue was