Karout F.J. MICROLEAKAGE AROUND CLASS V COMPOSITE RESTORATIONS AFTER ULTRASONIC SCALING Tutors: PhD, associate professor Petrouk A.A., assistant Kryvanosshchanka V.V., assistant Kruk M.I. Department of General Dentistry Belarussian State Medical University, Minsk

Relevance. Currently, the most popular restoration materials for all classes of carious cavities are composite materials. One of the components of maintaining the integrity of previously performed restorations is professional hygiene using both manual and mechanical tools. According to the literature data, 90-92% of specialists in their practice use ultrasound devices for professional hygiene. The use of ultrasound provides a number of advantages: speed and ease of manipulation, but it is also known about the negative effects of ultrasonic and manual processing on the root and enamel of the tooth and on composite restorations.

Aim: to study the edge fit of composite fillings after exposure to an ultrasonic scaler.

Materials and methods: the object of the study were extracted teeth in which class 5 cavities were formed within the enamel and dentin without reaching the enamel-cement border, the cavities were filled with composite material, polished with Shofu discs. The experimental stage of the study consisted of scanning electron microscopy to assess the edge fit of restorations immediately after the placement of fillings and after exposure to ultrasonic scaling for 30-60 seconds.

Results and their discussion. The results of the study showed violations of the marginal fit of fillings after exposure to ultrasound, and if the scaler nozzle was incorrectly positioned, microcracks within the enamel were determined, which in patients can lead to further development of microcracks and the appearance of postoperative tooth sensitivity.

Conclusions: the ultrasonic exposure time should not exceed 1 minute per surface. The recommended power of the ultrasonic tip is medium or small. After using ultrasound, in order to prevent the deposition of soft plaque, it is recommended to thoroughly polish the surfaces with certified systems for polishing restorations.