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**CLINICAL AND LABORATORY SUBSTANTIATION OF APPLICATION OF A-SILICONE MATERIAL FOR CLASPLESS FIXATION OF REMOVABLE DENTURES IN MESIAL-DISTAL TEETH INCLINATION**

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**Key words:** prosthetic dentistry, A-silicone material, claspless fixation, partial removable denture.

The prevalence of defects of dentition among the population of Ukraine has reached significant figures. As evidenced by data from the scientific literature (Dorubets 2007, Pavlenko 2010, Kabakov 2011) the number of such patients from the total population of Ukraine amounts to from 70% to 95%.

The aim of prosthetics is not only restore aesthetics but also the function of chewing, anatomical integrity, normalization of activity of masticatory muscles and the temporomandibular joint, retention of the existing dentition and prevent its further destruction. Modern dentistry offers many options to achieve this goal. Currently, dental implantation is becoming an increasingly common treatment method, while using partial removable dentures is becoming less popular. But, on the other hand there are many factors that are limitations to the use of the method of implantation. Among them: the quality of bone, Smoking, presence of systemic diseases, the patient's age and economic conditions. In this regard, the importance of a removable prosthesis cannot be denied.

Evolution of removable partial dentures has come a long way, leading to numerous projects that were a failure in dentistry. The vast majority of these projects do not function to protect or preserve abutment teeth and strengthen the surrounding structures of periodontium. In generally, they are not comfortable and not aesthetic. Partial dentures is perhaps the most undervalued and, in some cases, improperly designed. Classically, partial dentures are considered a last resort to restore the

dentition.

Large defects of dentition and distal unlimited defects are the main factors in the manufacture of removable structures. Fixation of removable partial dentures is one of the major problems of modern prosthetic dentistry. Prosthetics with a small number of remaining teeth is very challenging, which is determined by the clinical conditions of the oral cavity.

One of the obvious limitations of using RPD especially in the replacement of front teeth is unsightly metal clasp. Traditional clasp fixation was used for many years and has proven its ability to retain a partial removable laminar denture in place. However, the use of traditional clasps as a fixation may have an aesthetic disadvantage, especially when the placement is in the anterior region. Therefore, in this situation should be considered other options, because there are many types of fixation in the form of intracoronal and extracoronal systems.

Soft elastic lining for prostheses were designed to improve the surface of complete dentures and help to avoid injury to the tissues. There are two types of silicone soft linings: plasticized polyacrylate and silicone.

In some studies, the use of soft linings is characterized by significantly better performance restore speech and ability to chew, significantly reduced pain and pain when wearing dentures. Prosthesis retained better and stabilizes, increases psychological comfort and times the dressing dentures, significantly increases the maximum occlusion power. However, other studies have not confirmed this finding.

Common techniques of manufacturing of claspless dentures are described in relevant literature. Fixation takes place with the help of magnets from samarium-cobalt, which is built into the abutments of the prosthesis on the one hand, and the teeth that remained. Studies have shown that many cells and tissues of organisms are sensitive to a magnetic field depending on the nature, duration of exposure and intensity.

Having conducted the literature review, we can conclude that the elaborated literary sources emphasize the relevance of A-silicone material for claspless fixation of removable dentures with mesiodistal inclination of the teeth, which requires clinical and laboratory studies on the development and implementation of methods of claspless fixation of dentures using A-silicone material, and also to determine the clinical and cost-effectiveness.

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## **ІСТОРИЯ МЕДИЦИНИ**

### **MORPHOLOGICAL AND FUNCTIONAL STUDIES OF LYMPHATIC SYSTEM IN ITS HISTORICAL ASPECTS**

**Dzevulska I.V., Malikov A.V.**

**Key words:** lymph, lymphatic vessels, circulation, microcirculation, injection, absorption.

The article highlights the historical aspects of research of the lymphatic system. They originated from ancient times and can be associated with the names of Hippocrates, Aristotle, Erasistratos, Herophilus, and later, during the Renaissance of science with the names of Vesalius, Falloppio, Eustachio. In the works of ancient scholars, vessels and components containing clear liquid or white blood were mentioned, the purpose of which long remained unclear. Anatomical study of the lymphatic system with the use of injections was actively conducted by many scientists such as Azelli, Nuke, Stenon, Semmering (1801) and Stefanis (1902). Some injectable mass is still successfully used in our time. In the XVIII century the works of Hunter and Huston had a major relevance due to the fact that they were the first to use mercury injections in their studies of the lymphatic system. It was at that time that an important part of studying the functions of the lymphatic system was the observation, confirmed by many researchers, that certain substances that were injected into serous and synovial cavities and into the tissue, were absorbed by lymphatic capillaries. Mascagni (1787) and Bichat were the first to study the issue. They imagined serous cavities as large interim storage tanks. They proposed that the internal liquid, while leaving blood capillaries, is delayed for a while in the serous cavities, and then sucked into the lymphatic capillaries. The authors speculated that absorption occurs through the numerous holes that connect directly to the body cavity with a dense mesh of lymphatic capillaries of serous membranes. At that time atlases of the lymphatic system, written by Mascagni (1787), were already published. This theory, which was introduced during the reign of the doctrine of the open structure of the lymphatic