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### **BIOCAPSULA IS A NEW APPROACH FOR THERMAL INJURY**

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**Abstract** The problem of treatment of skin lesions is relevant for medicine. The most promising direction in the treatment of multiple skin defects is to create the so-called "biocapsula" filled with specially selected polymer and drug substance. The article offers an option of biocapsula design and scheme of construction.

**Introduction.** In modern medicine, there is a division of anti-burn methods of treatment, which undoubtedly impairs the logistics and management of patient management, and this is reflected in the terms of treatment, due to the frequent impossibility of their integrated use. Our idea will allow to combine existing methods in conjunction with the hydropolymer having regenerative properties and allows you to add him substances that act locally.

At this point in medicine for the treatment of burn injury using a number of means: gidromatratsy and various les medicaments for topical and systemic use. Scientific novelty of the design solution is to close the damaged skin hydrogel, are in the cycle of circulation, with the introduction of drugs, as well as the combination of open and closed-conducting thermal injury using physiotherapy techniques combined in one device.

**Material and methods.** The aim of the invention is to provide a device that allows you to make circulating around the wound a moist environment, circulating dry environment, with the possibility of pharmacological correction that each stage of wound healing process performs certain functions. The inflammatory phase is provided by mechanical cleaning of the wound from foreign bodies, there is a toilet wound exudate diversion and prevention of local infection. The proliferation phase and the healing phase, the conditions for effective wound healing through self-epithelialization or improved engraftment of free split skin graft when the autodermoplasty and preventing the development of local infectious complications.

The device is a multilayer bandage with a channel network structure type swing with stops at the edges of the cuffs to seal the dressing with an outer layer, represented by Synthetic fabrics waterproof material with a membrane film. Middle breathable layer shown input and output channel of the porous mesh structure covering the entire surface of the device with a protective layer. An inner layer adjacent to the wound fabric tape presented a synthetic material with a mesh structure to create a capillary effect. The workspace is located between the inner surface of the device, the outer surface of the body and limited by the edges of the cuffs device.

**Results.** Results from using the device is to reduce the percentage of complications in the wound and regeneration enhancement in the wound; providing reliable protection of the affected surface of the physical, mechanical, chemical pollution factors; ensuring maximum convenience medical staff in working with trauma patients; ensuring maximum convenience trauma patients in the treatment process.

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### **THE DEVELOPMENT OF ACUTE DISORDERS OF CEREBRAL CIRCULATION IN PATIENTS WITH ARTERIAL HYPERTENSION**

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Hypertension (GB) is the most common disease that is associated with a significant risk of cardiovascular complications and death. In Russia the prevalence of GB among women is 40.4 per cent, among males - 37.2%. GB in its development is associated with structural and morphological changes of the vascular system of the head.

The aim of our study was to analyze the frequency of acute disorders of cerebral circulation (stroke) in hypertensive patients under treatment in the Department for patients with acute damage of cerebral circulation SAHI JSC "Blagoveshchensk city clinical hospital".

A retrospective analysis of 95 case histories of patients aged 47 - 89 years for 2015. The average age of patients amounted to 75,3±1.5 years. 85,2% of patients were diagnosed with ischemic stroke, 14.8% of patients with hemorrhagic stroke.

The diagnosis of stroke was verified by the results of computer tomography of the brain. Assessment of neurological status included determination of the degree of impairment of consciousness, presence of motor and sensory functions, and coordination of static-dynamic disorders.

In the main part of the patients episode of stroke occurred at home (in the home – 83,5%), 6.1% of patients at work, at 4.8% on the street, at 3.2% in a public place, from 2.1% in entertainment establishments