BIOCAPSULA IS A NEW APPROACH FOR THERMAL INJURY

Kushnarev V.A., Yatsenko A.A., Mironenko A.V., Omelich E.V, Barannikov S.V
Amur State Medical Academy, Blagoveschensk, Russia

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 lesions 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 autodermaplasty 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.
and 0.3% in other locations. During the first 12 hours from the time of the development of stroke patients who were in PSO: 54.5% in ischemic stroke (AI) and 59.6% in hemorrhagic stroke (GI). At admission impaired consciousness was identified in 22.4% of patients, with GI – 42.4%, AI – 19%.

Among patients with AI, the lesion is often localized in the vertebral-basilar pool, in the pool right artery and the pool left artery. In patients with GI lesions were more frequent in the right hemisphere of the brain and in the basin of the cerebellum. Most of the enrolled individuals included the following precursors of stroke: headache (92.6%), dizziness (66.6%), speech disorder (44.7%), nausea (35.6%), rise in blood pressure (32.5%), epistaxis (1.7 percent).

To enroll in PSO, the average systolic blood pressure (SBP) of patients was 178.3 mm Hg, mean diastolic blood pressure (DBP) is 97.4 mm Hg. After the treatment of AD decreased the GARDEN to 137.6 mm Hg, DBP to 87.5 mm Hg. All patients had the risk factors (RF) such as hypertension and 97% of family history – 84%, dyslipidemia – 77%, obesity – 67%, Smoking – 68%, alcohol abuse 18%. Of the comorbidities identified: AG – 97%, cerebral atherosclerosis – 69%, coronary heart disease – 48%, atrial fibrillation - 25%, chronic obstructive pulmonary disease – 13%, diabetes 44%, respectively.

In 55% of patients are often detected disturbing and depressing events. In 67% of patients, arterial hypertension was the third degree, 20% second, 13% the first. The duration of hypertension averaged 10±1.7 years. Baseline antihypertensive therapy was received by only 14 people (14.7 per cent), episodic treatment was diagnosed in 23 patients (24.2%), 58 patients (61.1%) have hypertension is not treated.

Analysis of outcomes of hospitalization showed that the recovery выписано 7.6%, improvement – 78.8%, "no change" - 0.6%. Death is set at 11.5% of patients.

Thus, the obtained results can be used when planning measures for the prevention of cerebral complications of hypertension.

**Literature**

5. Martynov M. Y. Chronic cerebrovascular insufficiency and ischemic stroke: author. dis. ... doctor of medical Sciences, Moscow, 2002, p. 45

DOI: 10.22448/AMJ.2016.15-16.78-80
UDC 618:616.921.5

**PNEUMONIA IN PREGNANT WOMEN DURING INFLUENZA PANDEMIC-IMPORTANT PROBLEM OF PULMONOLOGY**

Lazutkina E.L., Lazutkin N.N., Bardov V.S.

Amur State Medical Academy, Blagoveshchensk, Russia, Far Eastern Scientific Centre of Physiology and respiratory pathology SB RAMS, Blagoveshchensk

**Abstract** The etiology of pneumonia, particularly in pregnant women and the effectiveness of antibiotic therapy in the period of epidemic influenza in the Amur region were studied. 49 pregnant women with community-acquired pneumonia were examined and treated. 1. Influenza A/H1N1swl in pregnant women is developing severity and is accompanied by a high rate of complications as pneumonia, respiratory distress syndrome, placental insufficiency and the formation of post pneumonic pulmonary fibrosis in the outcome. In pregnant women with viral-bacterial pneumonia occurred against the background of severe forms of influenza A/H1N1 swl, you must apply the causal combination therapy: Relenza, oseltamivir treatment with antibiotics. One of the criteria for the effectiveness of the treatment is the dynamics of Leukocyte formula (an increase in the percentage of neutrophils). During the stages of intensive therapy, it was necessary to evaluate the hemostatic system and to make corrections of identified hemocoagulation damages.

**Key words**: pneumonia, pregnancy, influenza, treatment.