

Hemostatic agents in the service of Emergency Medicine

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Bleeding and effusion of blood in trauma, especially for bullet wounds, remains a major cause of death of people affected in a variety of emergency situations, including on the battlefield during the war. Only in road accidents each year more than 30 million inhabitants of the earth receive such injuries. According to statistics, 80% of these people die if they had not been given medical aid properly even in the prehospital phase. In addition, compared to the past century, the number of emergencies in recent years has increased by 24% [3]. Continued growth in accidents and injuries and death while it is young adults calls the need to develop methods of reliable and long-term bleeding stops already in the pre-hospital phase, because the transportation of the victim can be time consuming and delay receiving specialized medical care. Despite some achievements finding an effective, safe, fast-acting hemostatic agent to stop bleeding in an emergency is an urgent problem of pharmacy.

Traditionally, in such situations, gauze bandages and wipes impregnated with different hemostatic agents, parenteral hemostatic agents (menadione, calcium gluconate, aprotinin, contrical et al.) are used [1]. It is now drugs based on natural biopolymers and minerals proven very well. Of the latter Chitosan - a natural polysaccharide derived from the shells of crustaceans - applied successfully. These American and British agents have been tested with positive results in 92% of the area of operations [2]. Of interest is the development of drugs based on biopolymer complexes with biologically active substances plants having hemostatics action and simultaneously with wound healing, anti-inflammatory and antibacterial action.

References:

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