

A NEW METHOD OF HEMO- AND AEROSTASIS IN LUNG SURGERY**Niyazmetov Sevarbek Bakhtiyorovich**

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Abstract. A clinical group was formed to investigate and evaluate the effectiveness of the proposed method of preventing the development of disorders of aero- and hemostasis after lung resection operations. After the resection stage of lung surgery, in order to achieve stable aero- and hemostasis in 58 patients (2022-2023), the proposed method was applied using the domestic hemostatic agent Hemoben. Studies have shown that polymerization of Hemoben powder on the wound surface of the lung occurs in a short time, is characterized by sufficiently strong adhesion and aerostasis, and fixation of the free flap of the pleura provides elasticity of the coating, as well as a long-term effect with prevention of the development of the adhesive process.

Keywords: aero- and hemostasis; Hemoben powder; lung resection operations; free pleural flap.

For clinical surgery, a method for preventing the development of disorders of aero- and hemostasis has been improved, providing for two-component strengthening of the zone of resected lung tissue by local application of a hemostatic agent with the formation of an airtight film followed by fixation of the parietal pleural leaf to it.

A clinical group was formed to investigate and evaluate the effectiveness of the proposed method of preventing the development of disorders of aero- and hemostasis after lung resection operations. This study is the primary one in terms of evaluating the effectiveness of the domestic Hemoben drug. After the resection stage of lung surgery, in order to achieve stable aero- and hemostasis in 58 patients (2022-2023), the proposed method was applied using the domestic hemostatic agent Hemoben. Among the etiological diseases that caused the marginal lung resection in most cases in both groups was echinococcosis – 38 (59.4%) cases in the comparison group and 34 (58.6%) in the main group. Boulez disease was noted in 16 (25%) and 15 (25.9%) cases, respectively, bronchiectasis – 5 (7.8% and 5 (8.6%), as well as lung abscess – 5 (7.8% and 4 (6.9%) patients. All patients were operated on as planned.

The objective of the invention is to develop a method for reliable aero- and hemostasis after resection operations on the lungs, while inexpensive and easy to perform. The task is solved by the fact that the method of hemo- and aerostasis in lung surgery includes resection of the lung, application of a cellulose-based drug to its surface, drainage and suturing of the wound, as a cellulose-based drug, a powdered composition "HEMOBEN" (containing Na-carboxymethylcellulose, oxidized viscose, oxidized cellulose, calcium chloride in the ratio, wt. % respectively: 46,5%, 10,5%, 19,0%, 24,0%) with a particle size of no more than 100 microns is applied to the wound surface of the lung by insufflation, at the rate of 200 micrograms of powder per 10 cm² of the wound surface of the lung, then

after 2-3 minutes the excess powdered composition is removed by rinsing with an antiseptic jet for 5 seconds, after which the specified powdered composition Hemoben is reapplied at the rate of 100 micrograms of powder per 10 cm² of the lung parenchyma with the expansion of the powder spraying zone in all directions by 1.5-2.0 cm from the edges of the primary treated surface, then a free flap of the parietal pleura is applied to the treated surface and tightly pressed for 2 minutes and the operation is completed in the usual manner.

Advantages of the method: the method is inexpensive, quite simple in execution; wound coating in the form of a powdered HEMOBEN composition is a biocompatible hemostatic and aerostatic with a biodegradation period of 2-3 days; the formation of a composite polymerizing wound coating in contact with blood with adhesion to it of a free flap of the parietal pleura with blood promotes prolonged biodegradation of the coating, which increases the duration of aerostasis; the formed coating is elastic, which does not reduce the excursion of the lungs and does not lead to their deformation.

Studies have shown that polymerization of Hemoben powder on the wound surface of the lung occurs in a short time, is characterized by sufficiently strong adhesion and aerostasis, and fixation of the free flap of the pleura provides elasticity of the coating, as well as a long-term effect with prevention of the development of the adhesive process.

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