

RESULTS OF SURGICAL TREATMENT OF ECHINOCOCCOSIS OF THE LUNGS

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Abstract. Surgery of echinococcosis of the lungs (EL) refers to an acute acute problem, due to the frequent complicated course of the disease and the continuing high proportion of postoperative complications. The purpose of the study. To evaluate the effectiveness of the proposed method of surgical treatment of complicated EL. Material and methods. The study was conducted for the period from 2010 to April 2023. The study included a total of 366 patients with EL. Results. The proposed tactical and technical aspects in the surgical treatment of EL allowed to reduce the time of drainage of the pleural cavity from 4.5 ± 3.6 days after organ-preserving operations and 4.2 ± 3.5 days after resection interventions to 2.9 ± 1.6 days in the main group, as well as the duration of the postoperative hospital stage from 10.0 ± 3.9 days and 9.8 ± 3.4 days to 8.2 ± 2.6 days. Conclusion. The proposed method of suturing the bronchial stump in combination with the use of hemostatic agent Hemoben and laser exposure during resection interventions in patients with EL allowed to reduce the incidence of postoperative complications

Keywords: surgical treatment; echinococcectomy; organ-preserving operations; resection interventions.

The relevance of the problem. Surgery of echinococcosis of the lungs (EL) refers to an acute acute problem, due to the frequent complicated course of the disease and the continuing high proportion of postoperative complications. The development of giant or complicated echinococcosis of the lungs is associated with additional risks during its surgical treatment associated with contamination and destruction of lung tissue. At the same time, performing organ-preserving operations often causes a high risk of complications from the residual cavity. On the other hand, performing resection interventions can lead both to the loss of healthy parenchyma and to the development of the failure of the bronchial stump or other complications associated with the progression of the infectious and inflammatory process in healthy areas of the lung, initially adjacent to the complicated cyst.

The purpose of the work: to evaluate the effectiveness of the proposed method of surgical treatment of complicated EL.

Materials and methods of research. The study was conducted for the period from 2010 to April 2023. The study included a total of 366 patients with EL. According to the goal, all patients were divided into 2 groups. The main group included 84 patients who, during the period from 2021 to 2023, underwent resection operations with EL using the proposed method, which included both technical aspects of novelty and the addition of the operation by physical methods of exposure in the form of laser irradiation of the surgical intervention zone and the use of domestic hemostatic agent Hemoben. Two subgroups were included in the comparison group. The first subgroup included 157 patients who underwent organ-preserving operations - echinococectomy with suturing of the residual cavity. The second subgroup included 125 patients who underwent resection interventions (lobectomies - 118 or bilobectomies - 7) according to the traditional method. In the main group, 78 lobectomies were performed, and 6 patients underwent bilobectomies.

Results. The proposed method of suturing the bronchial stump in combination with the use of hemostatic agent Hemoben and laser exposure during resection interventions in patients with EL allowed to reduce the incidence of postoperative complications from 26.8% in organ-preserving operations (in 42 out of 157 patients in the first subgroup of the comparison group; $\chi^2=15.080$; $df=1$; $p<0.001$) and 20.0% in traditional resection operations (in 25 out of 125 patients in the second subgroup of the comparison group; $\chi^2=8,064$; $df=1$; $p=0.005$) to 6.0% (in 5 out of 84 patients in the main group), while eliminating the risk of complications from the residual cavity (5.7% - 9 patients after organ-preserving operations), and also reduces the probability of bronchial stump failure from 5.6% (7 patients in the second subgroup of the comparison group) to 1.2%, as well as hemorrhagic complications from 6.4% (10 patients in the first subgroup of the comparison group) and 2.4% (3 patients in the second subgroup of the comparison group) to 1.2% (1 patient in the main group). The proposed tactical and technical aspects in the surgical treatment of EL allowed to reduce the time of drainage of the pleural cavity from 4.5 ± 3.6 days after organ-preserving operations ($t=4.57$; $p<0.05$) and 4.2 ± 3.5 days after resection interventions ($t=3.67$; $p<0.05$) to 2.9 ± 1.6 days in the main group, as well as the duration of the postoperative hospital stage from 10.0 ± 3.9 days ($t=4.24$; $p<0.05$) and 9.8 ± 3.4 days ($t=3.82$; $p<0.05$) to 8.2 ± 2.6 days. Improvement of the course of the period of early postoperative rehabilitation made it possible to achieve an increase in the proportion of good immediate results in the main group from 73.2% (115 out of 157 patients in the comparison group with organ-preserving operations) and from 80.0% (100 out of 125 patients in the comparison group with resection operations) to 94.0% (in 79 out of 84 patients), as well as to level the risk of developing unsatisfactory results associated with the development of complications from the residual cavity with 5.7% (in 9 patients)

after organ-preserving operations; $\chi^2=14,095$; $df=2$; $p<0.001$) and from the bronchial stump with 3.2% (in 4 patients after resection interventions who underwent repeated open operations; $\chi^2=4.069$; $df=1$; $p=0.044$).

Conclusions. The proposed method of suturing the bronchial stump in combination with the use of hemostatic Hemoben and laser exposure during resection interventions in patients with EL allowed to reduce the incidence of postoperative complications from 26.8% in organ-preserving operations ($p<0.001$) and 20.0% in traditional resection operations ($p=0.005$) to 6.0%, while eliminating the risk of the development of complications from the residual cavity (5.7%), and the probability of bronchial stump failure decreased from 5.6% to 1.2% and hemorrhagic complications from 6.4% and 2.4% to 1.2%.

Improving the course of the period of early postoperative rehabilitation made it possible to achieve an increase in the proportion of good immediate results from 73.2% (after organ-preserving operations) and 80.0% (after resection interventions) to 94.0% (in the main group), as well as to level the risk of unsatisfactory results associated with the development of complications from the residual cavity (5.7% after organ-preserving operations; $p<0.001$) and from the bronchial stump (3.2% after resection interventions; $p=0.044$).

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