RESEARCH JOURNAL OF TRAUMA AND DISABILITY STUDIES

Volume: 02 Issue: 04 | Apr – 2023 **ISSN: 2720-6866**
http://journals.academiczone.net/index.php/rjtds

The Treatment of the Results of Pleural Empyema Complicated With Bronchopleural Fistula

Yakubov Farkhod Radjabovich
Urgench branch of Tashkent Medical Academy, Republic of Uzbekistan, Urgench

Sapaev Duschan Shukhratovich
Urgench branch of Tashkent Medical Academy, Republic of Uzbekistan, Urgench

Niyazmetov Sevarbek Bakhtiyorovich
Urgench regional medical association, Republic of Uzbekistan, Urgench

Abstract

Purpose. To determine the effectiveness of various methods of treatment of pleural empyema and offer the most optimal method of treatment, taking into account the course of the pathology. Material and methods. 43 patients were examined at the Khorezm Regional Multidisciplinary Medical Center, in whom pleural empyema was diagnosed and treated in the period from 2018 to 2022. Results. Complication of bronchopleural fistula occurred in 37.2% of patients treated with a diagnosis of pleural empyema. Positive results were achieved in 27 (62.8%) patients using conservative therapeutic measures. Of these, 21 had a complete recovery, that is, the empyema cavity and bronchial fistula were completely eliminated. A small dry residual cavity and an almost imperceptible bronchopleural fistula remained in 6 patients. Conclusion. Treatment of pleural empyema complicated by bronchopleural fistula depends on the stage of empyema, the nature and size of the bronchial fistula. Complex conservative treatment of acute empyema complicated by peripheral bronchial fistula gives good results.

Key words: bronchopleural fistula; empyema of the pleura; drainage of the pleural cavity; thoracotomy.

Volume: 02 Issue: 04 | Apr – 2023 **ISSN: 2720-6866**
http://journals.academiczone.net/index.php/rjtds

Introduction. Empiemasin's pleura gave bugungi kunda as an amalie the importance of the etib profession, since dolgarbligin was moldy. [1, 2]. Especially in this case, the most severe group of patients of this type, complicated by bronchial leaks, is formed. The relevance of this problem is not only the complication of empyema with bronchial discharge (from 5 to 38%), but also the height of the mortality rate in patients suffering from this pathology (from 5 to 25%) [3, 4].

Complications of pulmonary exinococcal cysts occur in 22.2-47.8% of cases than in the general case, of which the most commonly observed and severe types are rupture, suppuration and bleeding of the exinococcal cyst into the bronchi and pleura. The above complications, with severe consequences, are considered life – threatening for the patient and require urgent medical attention [5, 6], as well as cystobiliary leaks that require complex surgery in the field of Hepatology, which make hermitization and liquidation a specific challenge [7].

As the reasons for the development of pleural empyema, it is possible to indicate infectious and destructive diseases of the lungs, surgical operations, chest injuries. With the origin of pleural empyema, it causes the patient to change the etiological structure of the disease caller to form highly virulent, antibiotic-resistant strains [4, 8].

The treatment of pleural empyema, which is complicated by bronchopleural effusion, is a very complex and long-lasting process that includes surgical and conservative complex treatment methods.

The purpose of the study. To determine the effectiveness of various treatment methods of pleural empyema and, depending on the course of pathology, offer the most optimal method of treatment.

Materials and research methods. The Khorezm regional Multidisciplinary Medical Center conducted research work in 43 patients diagnosed and treated with "pleural empyema" in stationary conditions from 2018 to 2022. The age of patients ranged from 18 to 75 years. In 16 (37.2%) patients (n=14 males and n=2 females), bronchopleural effusion was detected, of which 6 (37.5%) were in the acute period of the disease, and 10 (62.5%) had effusion after the transition to the chronic period.

All patients underwent antibacterial and disintoxication therapy in a generally accepted way. Drainage of the pleural space was carried out under ultrasound control, relying on polyposision radioscopy data, in order to ensure effective evacuation of the exudate and subsequently to make it convenient to wash the pleural space with a solution of sodium hypochlorite and ozonized sodium chloride.

Volume: 02 Issue: 04 | Apr – 2023 **ISSN: 2720-6866**
http://journals.academiczone.net/index.php/rjtds

In our clinic, since 2018, the practice has been established of filling the bronchi with a gelatinous sucker, which forms a leak that causes the lungs to straighten as a result of creating a vacuum in the pleural space. This practice is carried out using a fibrobronchoscope. The result is bronchoblocasia. The practice was performed on 4 (25%) patients.

Depending on the size and nature of the bronchial flow, the method of surgical procedure is selected. 11 patients who underwent surgery performed Pleurectomy and Decortication and Pleurectomy.

The effect of treatment was assessed depending on the course of the clinical picture, the nature of radiological changes, bronchoscopy data, post-surgical complications and the degree of lethargy.

Research results. At the Khorezm regional Multidisciplinary Medical Center, 37.2% of patients diagnosed with pleural empyema (n=16) from 2018 to 2022 suffered bronchopleural effusion. In 27 (62.8%) patients, positive results were achieved using conservative treatment measures. Of these, 21 had a complete recovery, meaning that the empyema cavity and bronchial leakage were completely eliminated. In 6 patients, a small dry residual cavity and an almost invisible bronchopleural discharge were preserved.

Good results after surgery (elimination of residual space and bronchial leakage) were observed in 6 patients. A satisfactory result (reduction of residual space and bronchial discharge) was recorded in 3 patients. In 2 cases, an unsatisfactory result (the residual space and bronchial discharge remained unchanged) was found.

Two patients reported deaths (lethality - 12.5%). One patient died of pulmonary - cardiac and vascular insufficiency under intense intoxication until surgery for being in critical condition. One patient experienced lethality from myocardial infarction on the 1st day after pleuropulmonectomy surgery. A total of 41 patients recovered and were discharged home with improved condition (91%).

Research discussion. In our investigations, 37.2% of patients with pleural empyema had bronchopleural effusion. Of these, 79% had a chronic process due to the gradual transformation into destructive pneumonia. The next etiology in line was formed due to operas performed in the lungs (16%).

As a result of acute and chronic empieama, we got a good result in the treatment of patients with bronchopleural effusion complication, that is, in all patients after bronchial fillings (n=4).

Various types of surgery have been performed in 11 patients who have been complicated by bronchopleural discharge due to chronic empyema, following the date of the pleural space. Mainly

Volume: 02 Issue: 04 | Apr – 2023 **ISSN: 2720-6866**
http://journals.academiczone.net/index.php/rjtds

resection restorative pleurolobectomy and bilobectomy exercises were performed. The preparation of patients in the pre-surgical intervention period, the correction of protein metabolism disorders, the effective dating of the pleural space and the widespread use of antiseptic methods in the period of operation determined the effectiveness of the surgical procedure.

Four patients performed a Pleurectomy and pulmonary Decortication, and an operation to suture the pharynx. In the elimination of the foci of inflammation and the return of the lungs to their activity, the practice of decortication became very important. This operation paid off in 3 patients. A relapse of the disease was observed in Bit per patient.

Pleuropulmonectomy surgery was performed in cases where the strong development of the destructive process in the lung tissue and the suitability of the lung tissue were assured. This surgical procedure is very traumatic and can cause many complications. Such complications occurred in 2 out of 4 patients. This case ended with lethality in 1 person. Phlegmon of the chest wall was observed in 1 patient and a thoracostomy was performed in this patient. As a result, a bronchopleurothoracic fistula was formed.

Thoracoplastic surgery was performed on 2 patients with chronic empyema after pneumonectomy surgery.

In 2 patients with complications of early bronchial suture failure, an autotheri transpleural occlusion of the head bronchial leak was performed.

In the postoperative period, aspiration washing and bronchiological dating of pleural empyema were performed. Complications were not observed, the leak did not return. In one case, control bronchofibroscopy at 20 days after the operation observed wall agitation in the bronx steppe (0.2 cm.up to).

In a patient with three relapsed leaks, transternal bronchial occlusion surgery was performed after 3 months using re-omentobronchoplasty.

In the prevention and treatment of pleural complications after surgery, not only the pleural puncture, but also the activation of the patient in combination with it, respiratory Gymnastics and the transfer of patients to a vertical position in the shortest possible time, the effect of which is much higher in the treatment and and Prevention of the above complications [9, 10, 11].

In a general conclusion, the results of surgical treatment of patients with pleural empyema and observed bronchopulmonary discharge complication were satisfactory. In patients with

Volume: 02 Issue: 04 | Apr – 2023 **ISSN: 2720-6866**
http://journals.academiczone.net/index.php/rjtds

bronchopleural effusion as a result of pleural empyema, 75% of them were discharged home in satisfactory condition after surgical intervention.

Conclusion:

1. In the treatment of pleural empyema, which is complicated by bronchopleural discharge, it will depend on the stage of empyema, the nature and size of the bronchial flow. Complex conservative treatment of acute empyema, complicated by peripheral bronchial leakage, has a good effect.

2. The method of filling the bronchi with a gelatinous suction cup is an effective method for treating bronchial leaks and can be used regardless of the general condition of the patient.

3. Acute empyema is an indication for surgery if conservative treatment measures do not benefit for 3 weeks.

4. Resection-restorative operas (pleurolob-, bilobectomii) give good results in postpnevmonic empyema, which is complicated by bronchopleural effusion.

5. If there is a strong destructive process in the lungs and there are a large number of leaks, the selected operation should be pneumonectomy.

References:

1. Плеханов, А. Н., Цыбиков, Е. Н., & Амгалан, Л. (2008). Современные методы лечения острой эмпиемы плевры. *Хирургия*, (3), 70-73..
2. Colice, G. L., Curtis, A., Deslauriers, J., Heffner, J., Light, R., Littenberg, B., ... & Yusen, R. D. (2000). Medical and surgical treatment of parapneumonic effusions: an evidence-based guideline. *Chest*, *118*(4), 1158-1171.
3. Бисенков, Л. Н., & Биходжин, Р. Ш. (2007). Профилактика и лечение первичной несостоятельности культи бронха после пневмонэктомии. *Хирургия. Журнал им. НИ Пирогова*, (1), 59-62.
4. Бисенков, Л. Н., Попов, В. И., & Шалаев, С. А. (2003). Хирургия острых инфекционных деструкций легких. *СПб.: Деан*, 52-88.
5. Исмаилов Д.А, Кариев Т.М., Мухаммадиев М.Н. (2007). Хирургическое лечение эхинококка легкого, осложненного прорывом в плевральную полость. *Хирургия Узбекистана*, (1), 21-26.

Volume: 02 Issue: 04 | Apr – 2023 **ISSN: 2720-6866**
http://journals.academiczone.net/index.php/rjtds

6. Pfefferkorn, U., Viehl, C. T., & Barras, J. P. (2005). Ruptured hydatid cyst in the right thorax: differential diagnosis to pleural empyema. *The Thoracic and cardiovascular surgeon*, *53*(04), 250-251.
7. Sapaev, D. S., Yakubov, F. R., & Yakhshiboev, S. S. (2023). Evaluation of the factors influencing the choice of laparoscopic echinococcectomy in liver echinococcosis (LE) and its impact on postoperative outcomes. *Experimental Parasitology*, *248*, 108495.
8. Порханов, В. А., Бодня, В. Н., & Кононенко, В. Б. (1999). Видеоторакоскопия в лечении эмпиемы плевры. *Хирургия. Журнал им. НИ Пирогова*, (11), 40-44.
9. Рузибаев, Р. Ю., Курьязов, Б. Н., Сапаев, Д. Ш., Якубов, Ф. Р., Рузматов, П. Ю., & Бабаджанов, А. Р. (2019). Современная оценка проблем диагностики и хирургического лечения эхинококкоза. *Вестник Национального медико-хирургического Центра им. НИ Пирогова*, *14*(1), 134-139.
10. Babadjanov, A. K., Yakubov, F. R., Ruzmatov, P. Y., & Sapaev, D. S. (2021). Epidemiological aspects of echinococcosis of the liver and other organs in the Republic of Uzbekistan. *Parasite Epidemiology and Control*, *15*, e00230.
11. Sapaev, D. S., Ruzibaev, R. Y., Kuryazov, B. N., & Yakubov, F. R. (2019). Problems of diagnostics, treatment and prevention of multiple hydatid echinococcosis of the liver. *Вестник Санкт-Петербургского университета. Медицина*, *14*(1), 42-48.
12. Yakubov, F. R., & Sapaev, D. S. (2022). Surgical treatment of liver echinococcosis. *Journal of Medicine and Life*, *15*(11), 1409.
13. Radjabovich, Y. F., Azimovich, E. E., & Shukhratovich, S. D. (2023). Modern Treatment of Mallory-Weiss Syndrome. *International Journal of Health Systems and Medical Sciences*, *2*(4), 27-33.
14. Radjabovich, Y. F., Shukhratovich, S. D., & Nunyazovich, K. B. (2023). Modern Aspects of Prevention of Hernias of the Linea Alba of the Abdomen After Laparotomy. *Research Journal of Trauma and Disability Studies*, *2*(4), 139-142.