

APPLICATION OF LIGHT COAGULATOR IN THE TREATMENT OF TUBERCULOSIS PLEURISY. A CASE REPORT.

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A 44-year-old woman. First symptoms of the disease appeared four months ago: subfebrile temperature, weakness and night sweating. Chest radiographs were undertaken and left pleural effusion was revealed. Punction of the left pleural cavity was performed, and about 500 ml of fluid was evacuated at the first procedure. TB source of the pleurisy was considered on the base of clinic course of the disease and fluid cytologic examination. Standard regimen of chemotherapy was administered. Further attempts of pleural punctions failed to evacuate pleural fluid because of massive fibrinous masses and early fragmentation of the cavity. The patient was admitted to the clinic of Ural Research Institute of Phthisiopulmonology. Chest radiograph and CT-scan showed left massive pleural effusion (Fig. 1). Ultrasound examination showed fibrinous stratification alternated with small “vacuoli” of fluid (Fig. 2). Video-assisted thoracoscopy (VATS) was undertaken for total evacuation of the fibrinous masses and the fluid. Endoscopic picture showed massive fibrinous effusion (Fig. 3) which was evacuated by the aspirator (Fig. 4). Marked diffuse bleeding occurred from the parietal pleural surface. Light coagulation was used to control bleeding (Fig. 5). The coagulated areas can be seen after the application (Fig. 6). Once the pleural cavity became cleaned the thickness of the visceral pleura appeared to be evident so that lung expansion was impossible. Total decortication of the lung was performed (Fig. 7), and the lung excursions became sufficient for its expanding. Some small areas of diffuse bleeding and air leak were found on the pulmonary surface. Light coagulation was applied and bleeding was stopped and air leak was avoided (Fig. 8). A very thin coagulated layer resulted from the light coagulation (Fig. 9). Drainage tube was performed and removed four days later. Chest radiograph seven days after the operation showed sufficient left lung expanding and pleural sinuses blunting only (Fig. 10). Morphologic examination of the removed pleural specimens confirmed TB etiology of the pleurisy.

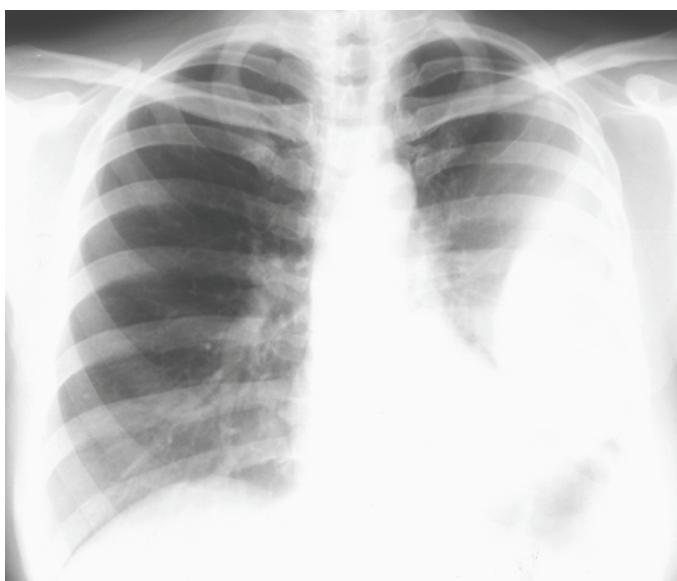


Fig. 1. Chest radiograph. Left pleural effusion.

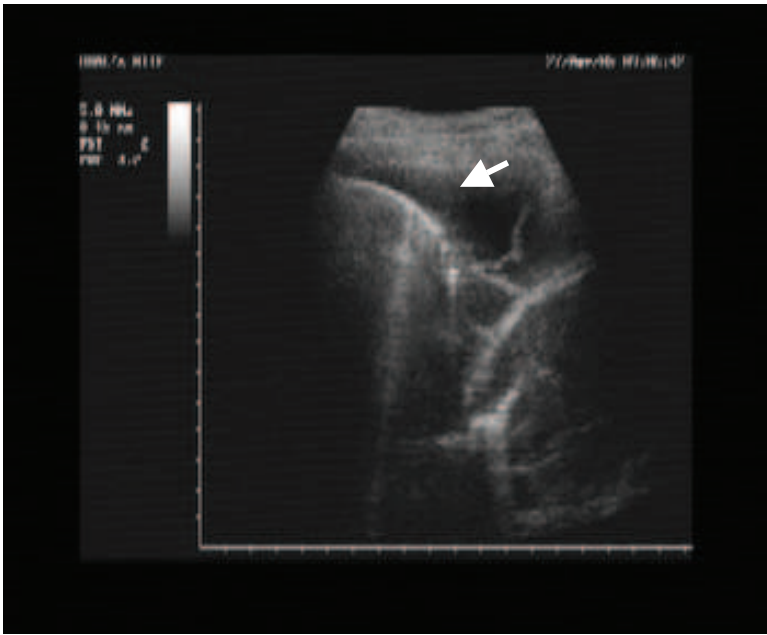


Fig. 2. Ultrasonographic picture. Fibrinous masses and “vacuoli” (arrow).

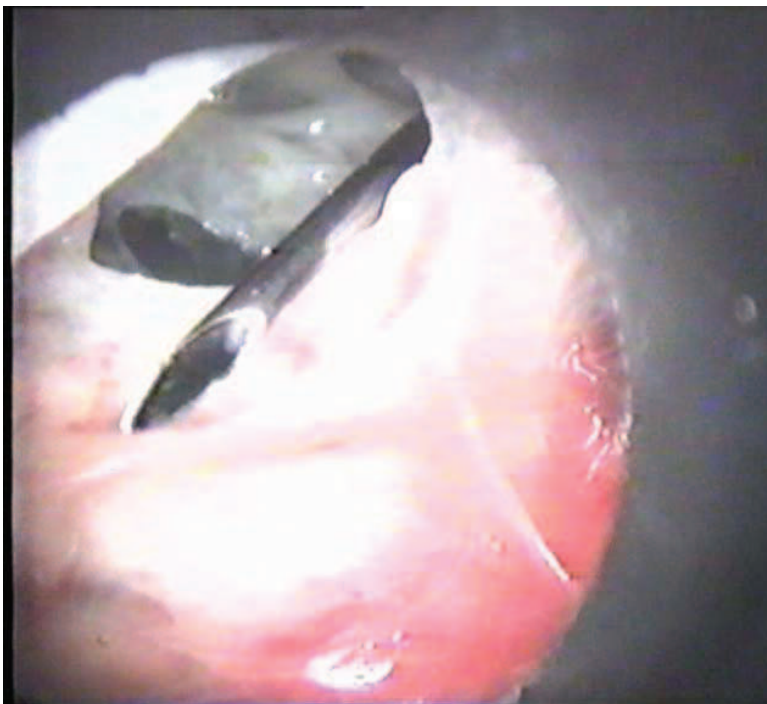


Fig. 3. VATS picture of TB pleurisy before clearing. A needle is inserted into the pleural cavity before performing a second thoracic port.

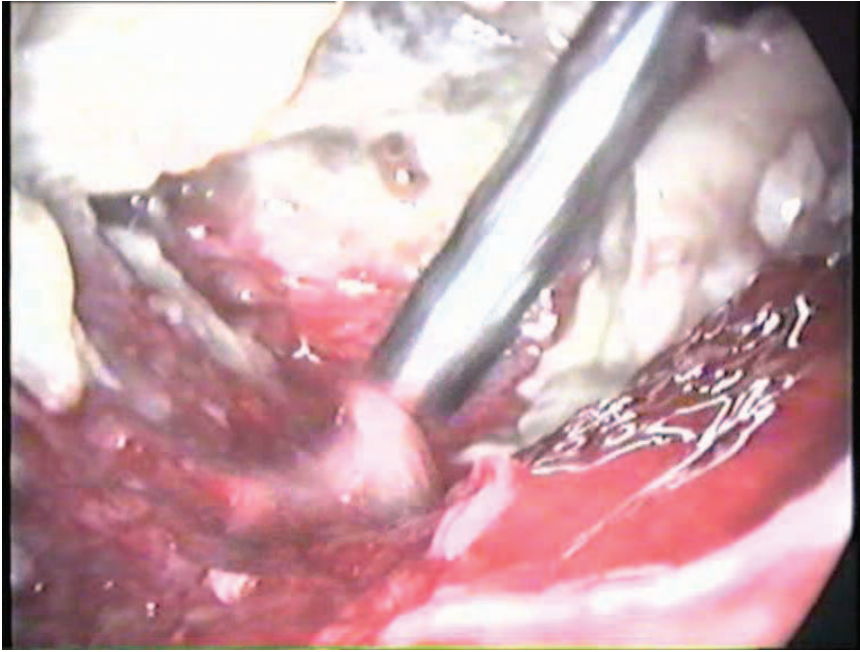


Fig. 4. Aspiration of the fibrinous masses.

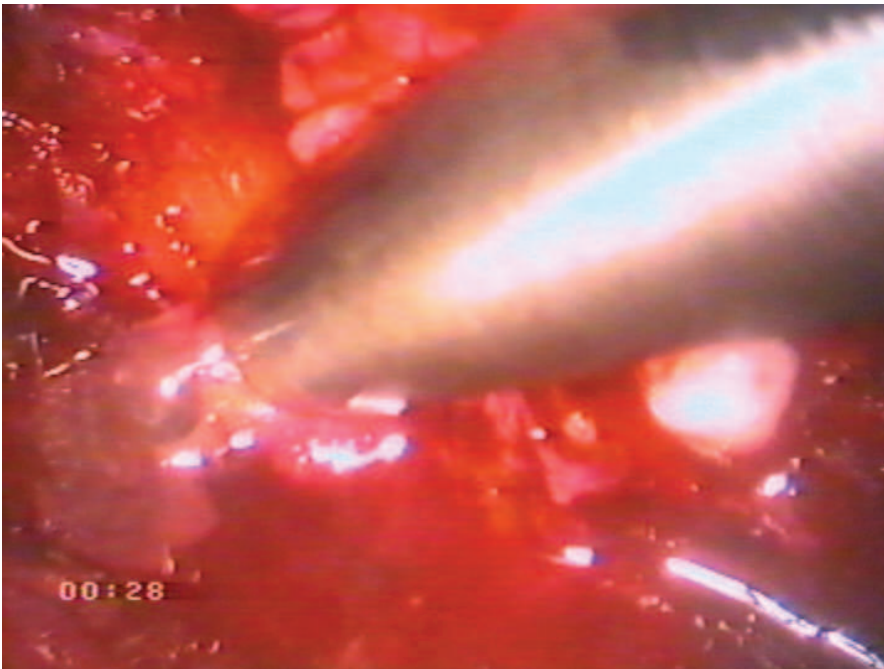


Fig. 5. Application of the light coagulator onto the parietal pleura.

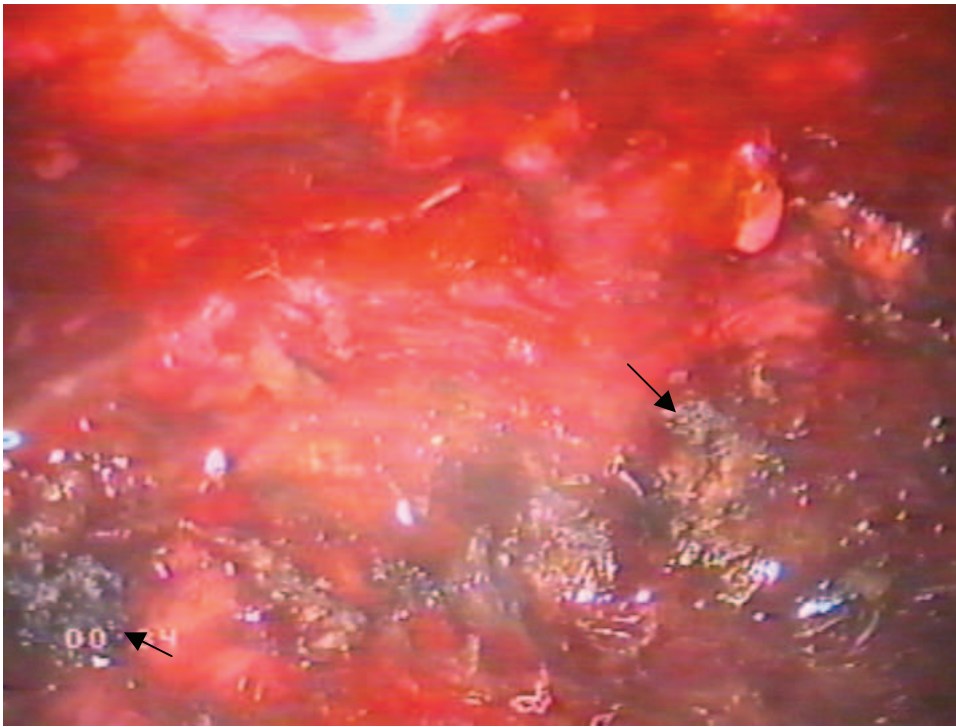


Fig. 6. Parietal pleura after light coagulation. Coagulated areas are visible (arrows).

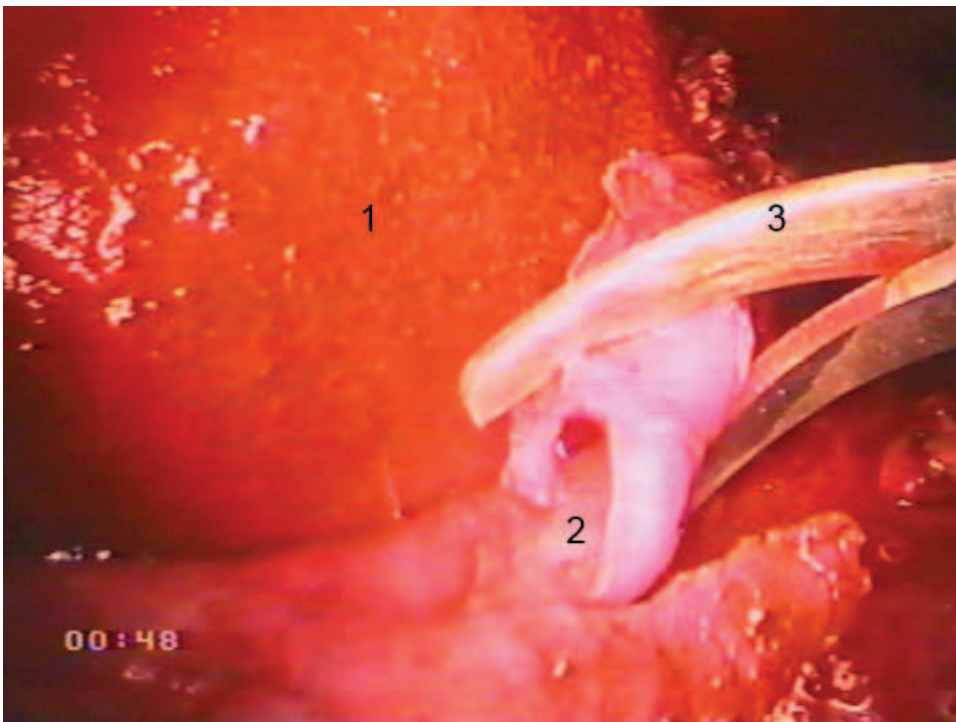


Fig. 7. VATS decortication of the lung. 1 – lung, 2 – thickened visceral pleura, 3 – scissors.

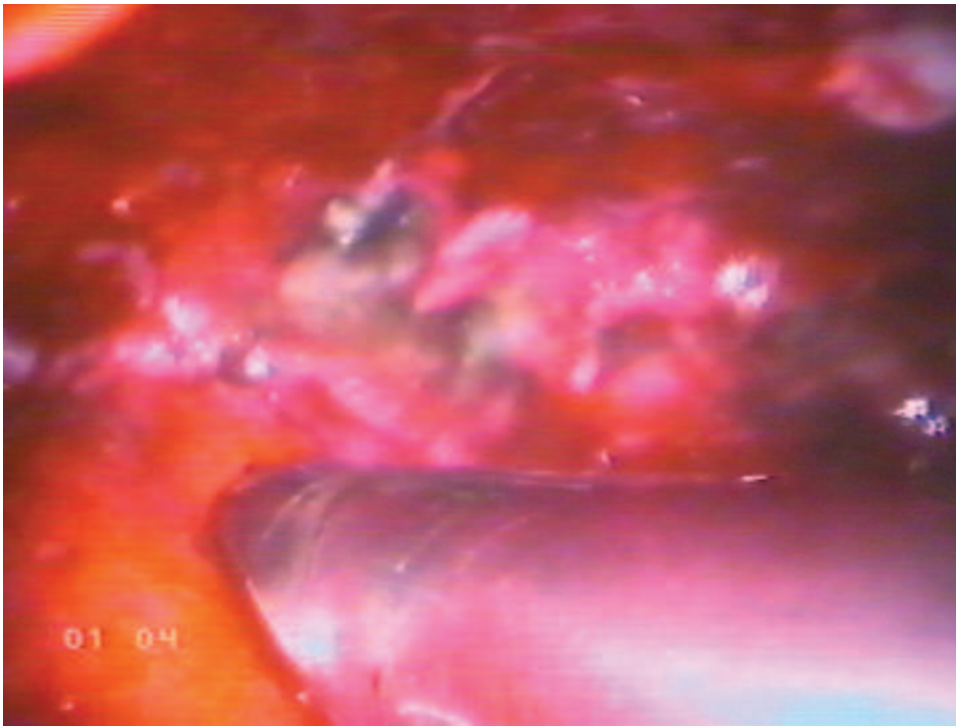


Fig. 8. Application of the light coagulator onto the lung surface.

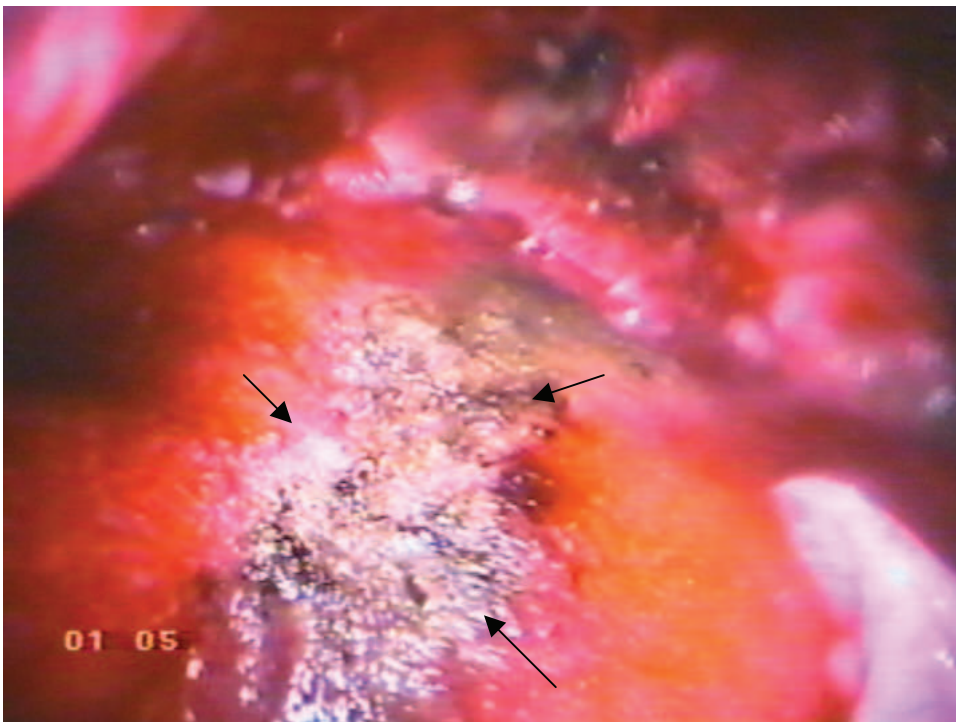


Fig. 9. Coagulated areas on the lung surface (arrows).



Fig. 10. Chest radiograph after the coagulation.

This case presentation showed that light coagulation proved itself to be of value for safe control bleeding as well as lung germetisation during VATS treatment of TB pleurisy. This method is also promising in other kinds of surgical procedures in the treatment of pulmonary TB.