

THORACOSCOPY - DIAGNOSTIC AND THERAPEUTIC OPPORTUNITIES IN SURGICAL CHEST DISEASES

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This paper presents some results from the diagnosis and treatment of 103 patients treated in the Clinic of Chest Surgery, Department of Surgery, Medical University, Varna, from 1989 till 1991. There are mainly males (79,61 % of the cases). According to the type of nosological units where thoracoscopy has been applied, patients' distribution is as follows: chest trauma - 44,66 % of the cases; spontaneous pneumothorax - 29,13 %; pleural effusions - 17,48 %, and malignancies of lung and pleura - 9,71 %.

At present, spontaneous pneumothorax is of clinical interest because of numerous etiological factors and common relapses. Routine diagnostic methods do not enable any precise morphological diagnosis. Thoracoscopy is indicated in spontaneous pneumothorax mainly in cases with partial pneumothorax with lung collapse above 20 %; in total pneumothorax, and tension one after emergency decompression of pleural cavity.

We used this method in 30 patients with spontaneous pneumothorax (in 85 % of the cases). It was localized in the right side in 20 cases and in the left side in 10 ones. Total pneumothorax was established in 66,6 % but a partial one in the rest 33,4 % of the cases. Thoracoscopically, pleural effusion with a volume of 50 to 200 ml was proved in 36,66 % of the cases as a sign of pleural response. Bubble emphysema was the most frequent reason for pneumothorax (in 73,4 %). Bubbles were single and pleural. They were most often located in the upper lung lobe (in 64 %). Pleural adhesions enabled air penetration into the pleural cavity in 20 % of the cases. The reason for pneumothorax remained unclear in 6,6 % of the cases. Thoracoscopy was applied in 26,7 % of the cases with relapsing spontaneous pneumothorax. After inspection we destroyed mechanically the fixed bubbles or adhesions and performed a chemical pleurodesis with Tetracort-spray.

We examined 44,66 % of the patients with chest trauma. Of them, 24 cases were with blunt but 22 ones with penetrating chest injury. Total pneumothorax was found out in 28,26 % of blunt and in 10,87 % of penetrating chest trauma patients, whereas partial pneumothorax was established in 23,91 % and in 34,72 % of the cases, respectively. Haemothorax as a complication of chest trauma was established in

39,13 % of blunt and in 100 % of penetrating chest injury cases. Pulmonary lesions included as followed: contusion of the lung with or without intrapulmonary hematoma (44 %); pierced wounds of the lung after penetrating chest trauma (90 %); diaphragmatic lesion (13,04 %), and lesion of pericardium and heart (4,34 %). We performed aspiration of the hemorrhagic pleural effusion and autohemotransfusion, lysing and evacuation of coagulated hematoma in the pleural cavity and intrapleural instillation of antibiotics. Thoracoscopy enabled specifying indications for thoracotomy. The latter was required in 7 patients with fixed alterations of the diaphragm and heart or with prolonged intrapleural hemorrhage.

Thoracoscopy was used in 18 patients with pleural effusions of unclear etiology (7 with specific and 11 with unspecific inflammations of the pleura and lungs). This method was also applied in 4 cases with lung carcinoma and in 6 ones with pleural mesothelioma. The diagnosis was based on the macroscopic pathomorphological alterations, cytological analysis of pleural effusions and histological examination of the biopsy material from the parietal pleura and the lung. We carried out under thoracoscopic control a double pleural drainage aiming at realizing a lavage of the pleural cavity with antibiotic and fibrinolytic solutions or an intrapleural instillation with cytostatics when neoplastic disorders of the pleura and lung were concerned.

We conclude that thoracoscopy enables a precise morphological diagnosis and a permanent therapeutic effect by application of chemical pleurodesis thus reducing the number of relapses. It helps the determining lesions of intrathoracic organs after blunt and penetrating chest trauma. Endoscopy of the pleural cavity allows the histological characterization of benign and malignant neoplasms of the pleura and lung.