

# ANALYSIS OF THE CAUSES OF THE MOST FREQUENT INTRAOPERATIVE AND POSTOPERATIVE COMPLICATIONS IN THE SURGICAL TREATMENT OF PULMONARY AND PLEURAL TUBERCULOSIS USING MINIMALLY INVASIVE INTERVENTIONS

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## *Abstract*

**Aim:** to analyze the most frequent causes of intraoperative and postoperative complications in the surgical treatment of pulmonary and pleural tuberculosis using minimally invasive video-assisted thoracic surgical (VATS) interventions.

**Materials and methods.** At the Department of Thoracic Surgery and Invasive Diagnostic Methods of the National Institute of Phthysiology and Pulmonology named after F. G. Yanovsky NAMS of Ukraine from 2008 to 2019 there were performed 169 VATS surgeries in pulmonary tuberculosis patients. Depending on the type of VATS intervention, all patients were divided into 3 groups: group A — 130 (79.3 %) of patients who underwent VATS lung resection or pneumonectomy; group B — 35 (20.7 %) of patients who underwent VATS pleurectomy with decortication (PE with HA) of lungs; group C — 4 (2.4 %) of patients who underwent other VATS interventions (pneumothorax in patients with tuberculosis (TB) without lung resection, coagulation of blister, pleurodesis).

In group A, patients underwent the following surgical interventions: atypical segmental resection — in 28 (16.6%) cases, typical segmentectomy — in 48 (28.4%), lobectomy — in 48 (28.4%), bilobectomy — in 2 (1.2%), pneumonectomy - in 4 (2.4%).

**Results.** The rate of intraoperative and postoperative complications during VATS surgical interventions was 3.8%, VATS PC with DC — 11.4%. Postoperative complications were recorded in 17 (13.1%) patients of group A and in 12 (34.3%), patients of group B. Postoperative mortality was not registered. Among possible causes of complications there could be congenital non-prominent interlobar groove, obesity and several medical causes (pleural cavity adhesions, endotracheal intubation, inadequate access), ultimately resulting in difficult-to-conduct VATS interventions.

**Conclusions.** The use of VATS is a convenient and effective low-traumatic method in the treatment of patients with pulmonary and pleural TB. Retrospective analysis of intraoperative and postoperative complications, conducted by authors of current report, may improve the effectiveness of VATS interventions.

**Key words:** tuberculosis of lung and pleura, surgery, video-assisted surgical interventions, complications, causes.

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