The results of treatment of complicated pleural empyema with VATS combined with the use of fibrinolytic agents

Wyniki leczenia powikłanego ropniaka opłucnej za pomocą wideotoraksokopii (VATS) w połączeniu z lekami fibrynolitycznymi

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ABSTRACT

Objectives: This study summarizes the effects of treatment of complicated PE.

Methods: In the period of 2004–2010, 11 children with PE aged 1–19 needed surgical treatment. Before having been referred to our department, all children were managed for sustained pneumonia by local pediatricians using broad-spectrum antibiotics. Next, children were ineffectively treated in general hospitals using conventional pleural drainages maintained for 1 week to 2 months.

Results: In 7 cases, a single video-assisted thoracoscopy (VATS), debridement, placement of pleural tubes under visual control, active suction drainage, and rehabilitation resulted in lung expansion, efficient ventilation, rapid relief of symptoms, and full recovery. Starting from the 2nd post-operative day, all children received fibrinolytics 3–6 times via chest tubes. In 3 patients, lack of lung expansion made the second VATS debridement necessary. In 1 patient in organizing stage of PE, re-VATS was supported by mini-thoracotomy allowing effective decortication and lung expansion. The average hospitalization time was 17 days. Surprisingly, even in the most neglected patients of our group, the follow-up CT scans done 3–4 months after discharge, were almost uneventful. The majority of spirometric parameters normalized within 6 months, and no child claimed dyspnoe due to physical strain.

Conclusions: Early VATS combined with early rehabilitation offers excellent results, radically improving the outcome in both the fibrinopurulent, as well as in organizing stages of PE in children, nonetheless surgeon should be experienced in the minimally invasive technique. The method seems to be successful even in very neglected cases, if not, patient could benefit from fibrinolytic therapy.

Key words: Pleural empyema, Thoracoscopy, Fibrinolytic agents, Children

Słowa kluczowe: ropniak opłucnej, torakoskopia, leki fibrolityczne, dzieci