

EVALUATION OF PROCEDURES AND PATIENT OUTCOME IN TENSION PNEUMOTHORAX

Jacek Lorkowski^{1,2}, Iwona Teul³, Ey Chmielewska⁴, Waldemar Hładki², Ireneusz Kotela^{1,5}

¹Department of Orthopedic and Traumatology, Central Clinical Hospital of Ministry of Interior, Warsaw, Poland; ²Department of Disaster Medicine, Chair of Anesthesiology and Intensive Care, Jagiellonian University Medical College, Cracow, Poland; ³Department of General and Clinical Anatomy and ⁴Department of Dental Prothetics, Pomeranian Medical University, Szczecin, Poland; ⁵ Department of Rehabilitation, Jan Kochanowski University, Kielce, Poland

Tension pneumothorax is a directly critical illness condition. The aim of this study was to evaluate the outcome of tension pneumothorax in trauma patients. The results of treatment of 22 patients hospitalized for trauma in 2000-2010 in which at the time of admission were found tension pneumothorax symptoms were assessed. This constituted 18% of trauma patients who at the time of admission to the hospital, during the initial examination, were diagnosed with pneumothorax. In the study group there were 17 men and 5 women. Patients age ranged from 21 to 85 (av. 48.8). In 19 cases tension pneumothorax was associated with polytrauma. Traffic accidents were the cause of most cases. Contusion of one or both lungs was observed in 16 patients. Typical paradoxical breathing occurred in 2 patients. Number of fractured ribs averaged 6.3 per patient. In each of the patients immediately on admission, after diagnosis based on clinical symptoms, tension pneumothorax decompression was performed by pleural drainage. Lung decompression and improvement of the clinical condition of the patient were obtained in a few minutes after pleural drainage. Then further diagnostic and therapeutic procedures were continued. Full time of hospitalization due to multiorgan injury was on average 58.6 days. 2 patients died during the treatment of these multiorgan injuries. Pneumothorax was not the cause of death in any of the patients. In summary, the therapeutic standard ordering the tension pneumothorax decompression already directly on admission to the hospital allows patient to survive in spite of the heavy nature of the injury.