

Pneumothorax

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[Intracavitary laser therapy and its effect on the kallikrein-kinin system of blood in children with pneumothorax]

[Article in Russian]

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The article presents the results of low-intensity laser application in complex treatment of 137 children with acute purulent destructive pneumonia complicated by pneumothorax with bronchial fistulas. A method of intracavitary laser therapy, developed in the clinic, allowed obliteration of bronchopleural fistulas without application of bronchial occlusion and other invasive techniques. Evaluation of the kallikrein-kinin system of blood revealed prominent reduction of kininogenesis in most (87%) patients upon admission (3 weeks after the onset of the disease), which is an important link of the pathogenesis of late stages of complicated acute purulent lung destruction in children. The study also demonstrated that low-intensity laser emission modulates pyoinflammatory process due to its effect on cell-mediated immunity, neutrophilic phagocytosis and the kallikrein-kinin system of blood. Intracavitary laser therapy is the treatment of choice in children with acute purulent destructive pneumonia complicated by pneumothorax with bronchial fistulas. Application of intracavitary laser therapy in complex therapy of complicated acute purulent lung destruction in children allowed discharge from the hospital 5 to 7 day earlier, and prevented lung inflammatory process chronization. None of the patients have died within last 10 years.