

# ETIOLOGY, CLINICAL SIGNS AND PATHOANATOMY FEATURES OF COMMUNITY-ACQUIRED PNEUMONIA IN THE EPIDEMIC SEASON

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## *Abstract*

Since the beginning of this epidemic season in Ukraine from the end of September 2015, there were registered 375 deaths of confirmed influenza etiology. In 81,6 % of cases an influenza type A virus (H1N1) pdm09 was identified. Despite the experience with the management of severe community-acquired pneumonia (CAP), caused by H1N1 influenza virus in 2009, widely reflected in the literature, this year physicians faced with problems of diagnosis and treatment of this disease again.

*Aim* of this study was to analyze the clinical course, severity of systemic inflammation and pathological changes in patients with severe virus-associated CAP during 2015–2016 flu epidemic by comparing these indicators with those from severe bacterial non-epidemic CAP patients.

*Material and methods.* 86 patients with severe CAP without HIV infection were examined and divided into 2 groups. Group 1 included patients with severe virus-associated CAP, which were treated in the intensive care unit (ICU) during the influenza epidemic season of 2015–2016. Group 2 consisted of patients with severe bacterial CAP, which were treated in ICU in non-epidemic period in 2013–2015.

*Results.* It was found that the features of severe CAP on a background of viral infection, such as influenza virus A(H1N1)-California include the following: socially active people, mostly of younger and middle age with obese or metabolic syndrome were affected. Acute respiratory failure, almost refractory to oxygen, was the leading clinical sign, accompanied by sustained high fever and leukopenia. Radiological evidence of bilateral fragmented consolidation and diffuse alveolar lesions, were revealed at autopsy.

This means that the mortality of patients with severe pneumonia depends on late detection and lack of preventive immunization. Patients with pneumonia require more cautious management in epidemic season regardless of their age, sex and presence of comorbidity, focusing on early and adequate oxygen therapy. Antibacterial therapy in patients with severe CAP should consider the possible role of multi- and mixed infection.

**Key words:** community acquired pneumonia, severe pneumonia, mortality, virus-associated pneumonia, influenza virus, leukopenia.

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