

# Forecasting thrombotic complications in patients with community acquired pneumonia according to multidimensional analysis of severity, systematic inflammation, endothelial function and hemostasis

T.O. Pertseva, K.O. Bielosludtseva, M.A. Krykhtina

Dnipro State Medical University, Dnipro, Ukraine

**Conflict of interest:** none

**BACKGROUND.** Despite the significant progress in the diagnostic and treatment of community-acquired pneumonia (CAP), the issues of timely defining thrombotic complications of CAP and their timely treatment have not yet been fully resolved.

**OBJECTIVE.** To determine the prognostic signs of the risk of thrombotic complications in patients with CAP.

**MATERIALS AND METHODS.** Thus, 45 patients with CAP of the 3rd and 4th clinical groups were examined. The result of the cluster analysis was the distribution of patients into certain clusters (classes). There were 3 clusters of patients depending on the predisposition to thrombosis.

**RESULTS AND DISCUSSION.** Patients belonging to cluster 2 and cluster 3 had a high risk of thrombosis. A feature of these patients was a severe course of CAP (by SMRT-CO scale), accompanied by significant leukocytosis or leukopenia in combination with severe systemic inflammation (C-reactive protein) and low protein C.

**CONCLUSIONS.** This category of patients should consider the possibility of prescribing anticoagulant therapy. While in patients with mild CAP, less pronounced systemic inflammation and high levels of protein C, the risk of thrombosis will be low. Therefore, this category of patients will not require the appointment of anticoagulants.

**KEY WORDS:** community acquired pneumonia, complications, thrombosis.