DIAGNOSTIC VALUE OF SURFACTANT PROTEIN D IN HYPERTENSIVE PATIENTS WITH COMMUNITY ACQUIRED PNEUMONIA AND CHRONIC KIDNEY DISEASE

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Community-acquired pneumonia is a risk factor for developing acute kidney injury, especially in patients with chronic kidney disease. Surfactant protein D expressed in lung and kidney plays important roles in innate immunity, protects the lung against various pathogens and associated with cardiovascular and chronic kidney diseases.

The aim of our study was to evaluate the plasma surfactant protein D levels in hypertensive patients with community-acquired pneumonia and chronic kidney disease during the hospital admission.

Materials and methods. All patients were divided into groups: I group included 16 hypertensive patients with community-acquired pneumonia and chronic kidney disease and the II group – 22 patients with community-acquired pneumonia. 10 healthy persons made the control group. Plasma surfactant protein D level was measure on the first, third, ninth day of admission to the hospital in addition to chest X-ray and standard diagnostic program.

Results are presents in table 1. Surfactant protein D in both groups was significantly increase from the first day to the third day and decrease to the ninth day of admission ($p<0,05$). Surfactant protein D levels were significantly higher in the I group then in the II group on the first, third, ninth day ($p<0,05$), but the II group and the healthy persons did not have statistically difference on the ninth day ($p>0,05$). Serum surfactant protein D levels were positively correlated with glomerular filtration rate ($R=0,76$; $p<0,05$), but both of them didn't have any correlation with C-reactive protein and white blood cells.

Conclusions. The levels of surfactant protein D in the I group on the ninth day of admissionwere still not achieved the normal predicted values.The increasing of the surfactant protein D levels in systemic circulation increase the systemic inflammation, participates in the lung-kidney-cardio crosstalk, influence on the endothelial dysfunction and increasing a risk for developing acute kidney injury.