

SECTION 1. CLINICAL MEDICINE: EXPERIENCE AND INNOVATIONS

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ASSESSMENT OF EFFECTIVENESS OF THE COMPLEX TREATMENT USING THIORIAZOLINE IN PATIENTS WITH COMMUNITY-ACQUIRED PNEUMONIA AND CONCOMITANT CHRONIC KIDNEY DISEASE

ВПЛИВ КОМПЛЕКСНОГО ЛІКУВАННЯ ІЗ ВИКОРИСТАННЯМ ТІОРИАЗОЛІНУ НА ПОКАЗНИКИ ЕНДОГЕННІЙ ІНТОКСИКАЦІЇ ТА АДАПТАЦІЙНІ РЕАКЦІЇ ОРГАНІЗМУ В ХВОРИХ НА НЕГОСПІТАЛЬНУ ПНЕВМОНІЮ З ХРОНІЧНОЮ НИРКОВОЮ НЕДОСТАТНІСТЮ

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Treatment of community-acquired pneumonia (CAP) remains an actual problem in modern medicine, especially in patients with concomitant pathology of internal organs. Thus, against the background of chronic renal failure, microbial pneumonia often occurs, which is characterized by erased symptoms and a protracted, persistent course. Such patients experience endotoxemia, which deepens the depression of the function of detoxification and excretion organs, which leads to a decrease in the effectiveness of drug treatment [1, p. 1000]. The use of Thiotriazoline, which has detoxification, antioxidant, membrane-stabilizing, and immunomodulatory properties, and improves reparative processes [2, p. 12], in the complex of therapeutic measures for patients with CAP and concomitant kidney pathology, will optimize the results of treatment, namely: reduce the level of endogenous intoxication, shorten the time to eliminate clinical manifestations of the disease, and reduce the patient's stay in the hospital.

The aim of the study: to evaluate the effectiveness of treatment of patients with CAP and concomitant chronic kidney disease by including the Thiotriazoline in the complex therapy.

Methods and Materials: 40 patients with CAP and chronic glomerulonephritis in the terminal stage of chronic renal failure who received program hemodialysis therapy in the chronic hemodialysis department at the Vinnytsia Regional Clinical Hospital named after M.I Pyrogov were examined. There were 18 women and 22 men. The duration of glomerulonephritis was 12.3 ± 3.2 years. The time to onset of renal failure was 4.8 ± 1.6 years. The average duration of stay on replacement therapy was 5.40 ± 1.10 years. Replacement therapy sessions were conducted 3 times a week for 4 hours. Patients were divided into two representative groups by age, gender, comorbidities and values of the indicators studied before treatment – the main group, which included 20 people, and the control group – 20 patients. Patients in the control group received traditional therapy, which included antibacterial, mucolytic drugs. Patients in the main group, along with traditional treatment methods, were additionally prescribed the 2.5% solution of Thiotriazoline 4 ml (100 mg) per day for three days intravenously in 200 ml of saline, then seven days intramuscularly. The clinical efficacy of therapy was assessed taking into account the dynamics of the clinical and X-ray examination of the disease, endogenous intoxication indicators: leukocyte intoxication index (LII) [3, p. 157], sorption erythrocyte capacity (SEC) [3, p. 157], adaptive reactions of the body [3, p. 157] to treatment, on the 3rd and 10th day after the starting of treatment. The reliability of the differences was determined using the Student's test (t) and assessed using the confidence interval (p). Differences were considered significant at $p < 0.05$.

Results: In patients of the main and control groups, a significant level of endogenous intoxication was detected before treatment, as evidenced by a significant increase in LII, SEC indicators ($p < 0.001$) compared to the normative indicators of practically healthy individuals. In the control group, LII on the 3rd day of pharmacotherapy increased by 10.2%, $p > 0.05$, and in the main group of patients decreased by 38.6%, $p < 0.001$. On the 10th day in the control group, LII decreased by 17.3%, $p < 0.01$, while in the main group it decreased by more than 3 times, and at the end of the observation period it was equal to 0.42 ± 0.02 u.o, $p < 0.001$.

Analysis of the dynamics of SEC indicators showed that in the group of patients receiving standard therapy, the SEC level on the 3rd day of treatment remained high, increasing by 9.0%, $p < 0.05$, and in individuals who received complex treatment with the inclusion of Thiotriazoline, this indicator decreased by 33.0%, $p < 0.001$. On the 10th day in the control group, this indicator decreased by 14.1%, $p < 0.001$, and in the main group by 40.2%, $p < 0.001$.

We also noted certain changes in the nature of the body's adaptive reactions. Favorable adaptive reactions (reactions of calm and increased activation) were observed with the same frequency (50.9% of patients in the control group and 48.2% in the main group). Additional administration of Thiotriazoline on the 3rd day of treatment increased the proportion of patients with favorable adaptation reactions from 50.9% to 68.9%, and on the 10th day – from 68.9% to 90.4%, $p < 0.01$. In the control group, on the 3rd day of hospitalization, the number of favorable adaptation reactions increased only from 48.2% to 54.0%, and on the 10th day from 54.0% to 61.0%, $p > 0.05$.

The positive dynamics of X-ray pattern is most important criteria for the effectiveness of treatment of the patients with CAP and concomitant chronic kidney disease. In 25.0% of patients in the main group and 38.0% in the control group the residual radiological changes in the form of interlobar and pleurodiaphragmatic adhesions and post-pneumonic fibrosis were detected.

Conclusions. The usage of Thiotriazoline in a daily dose of 100 mg for 10 days of therapy in the complex treatment of patients with CAP and chronic renal failure not only significantly reduced the indicators of endogenous intoxication (LII decreased by 38.6%, SEC – by 33.0%, $p < 0.001$.), increased the proportion of patients with favorable reactions to 90.4% and ensured a reduction in the time to eliminate clinical manifestations of the disease. Determination of the type of general nonspecific adaptive reaction of the body, the dynamics of endogenous intoxication indicators can be criteria for the effectiveness of treatment of patients with CAP and chronic renal failure.