RETROSPECTIVE COHORT STUDY TO EVALUATE THE CLINICAL EFFICACY OF REMDESIVIR IN THE TREATMENT OF PATIENTS WITH SEVERE COVID-19

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Abstract

The purpose of the study is to evaluate the clinical effectiveness of remdesivir in hospitalized patients with severe COVD-19 during complex treatment according to the National Protocol of the Ministry of Health of Ukraine.

Materials and methods. We used to the data of a retrospective cohort study in adult patients (≥ 18 years old) with severe COVID-19, who were admitted to the infectious diseases department No. 2 of the Volyn Regional Clinical Hospital from December 2020 to May 2021. The statistical analysis included a group of patients who received Remdesivir (n = 98) and a control group of patients who did not receive Remdesivir (n = 190), which was modified.

Results. It was found that 98 patients (n = 98) with severe COVID-19 who received Remdesivir at a course dose of 600 mg in 91.8% of cases (n = 90) recovered, the average age of those who recovered was 56.8 ± 2.56 years. On average, the beginning of the infusion of Remdesivir upon admission to the infectious diseases hospital occurred on the 9th day from the first day of the disease. In 8.2 % (n = 8), Remdesivir did not help patients with severe COVID-19 who died in intensive care, the average age of the deceased was 68.5 ± 5.83 years. During the study, it was found that the use of Remdesivir on average from the 9th day of illness at a course dose of 600 mg did not additionally affect the rate of restoration of saturation in patients with severe COVID-19 at the time of discharge from the hospital, and as an additive drug did not additionally affect on the reduction of CRP in the complex therapy with Dexamethasone of severe COVID-19, and also did not affect the use and/or reduction of the use of antibacterial drugs in patients with severe COVID-19. The use of Remdesivir did not significantly affect the decrease in the number of days of hospitalization, however, it significantly influenced the time of normalization of body temperature and, on average, this decrease was 1.7 ± 0.6 days in patients with severe COVID-19 compared with the control group without antiviral drug. It was found that Remdesivir in a course dose of 600 mg does not negatively affect creatinine levels and does not lead to renal dysfunction in patients with severe COVID-19. Despite the fact that 91.8 % of patients who received Remdesivir recovered, there was no statistically significant reduction in mortality (p > 0,05) in the age group of patients aged 56 to 79 years with severe COVID-19 when using Redmesivir in the second week of illness (median onset of antiviral therapy is 9 days), therefore, Remdesivir must be administered prior to the onset of severe COVID-19 with a hyperinflammatory condition.

Key words: coronavirus disease, severe COVID-19, remdesivir, retrospective cohort study.

Ukr. Pulmonol. J. 2024;32(1):34–38.

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