Another step toward final call on Remdesivir efficacy as a treatment for hospitalized COVID-19 patients: a multicenter open-label trial

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Abstract

Introduction: After emerging the global pandemic of SARS-CoV2 some preliminary studies demonstrated the efficacy of antiviral treatments. But shortly thereafter, inconsistencies in the results of further clinical trials raised doubts on the efficacy of these agents. In this study, we aimed to evaluate the effect of Remdesivir on hospitalized COVID-19 patients' outcomes. Material and methods: This study was an open-label, single-armed, clinical trial on hospitalized patients diagnosed with COVID-19 who had progressive respiratory symptoms despite receiving standard care. All patients received Remdesivir and their characteristics, outcomes, time of treatment initiation, and respiratory support stages during hospitalization were registered and followed up for 14 days. Results: 145 patients with the mean age of 52.89 $\pm$ 1.12 years enrolled in this study, 38 (26.2%) died at the end of 14 days period. The mean time interval from the onset of the symptoms to antiviral treatment was 10.63$\pm$0.56 days. Thirty deceased patients (78.9%) were men, showing 2.8 times higher mortality chance compared to women (ORadj=2.77; 95%CI=1.08-7.09). The type of respiratory support on the first day of treatment initiation showed a significantly lower mortality chance in patients receiving O2 only than those who needed non-invasive and/or mechanical ventilation (ORadj=3.91; 95%CI=1.64-9.32). The start time (early vs late administration) and duration (less or more than 7 days) of antiviral treatment had no statistically significant association with mortality or ventilation escalation among the patients (p-value $>$ 0.05). Conclusion: In this study, we showed that Remdesivir probably is not effective on the outcome of hospitalized COVID-19 patients.

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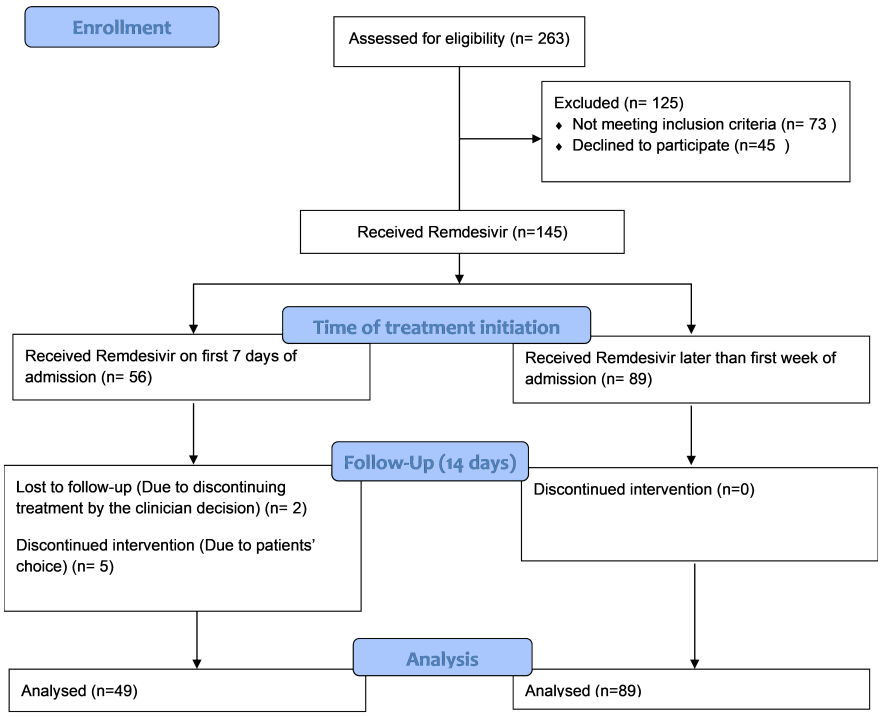

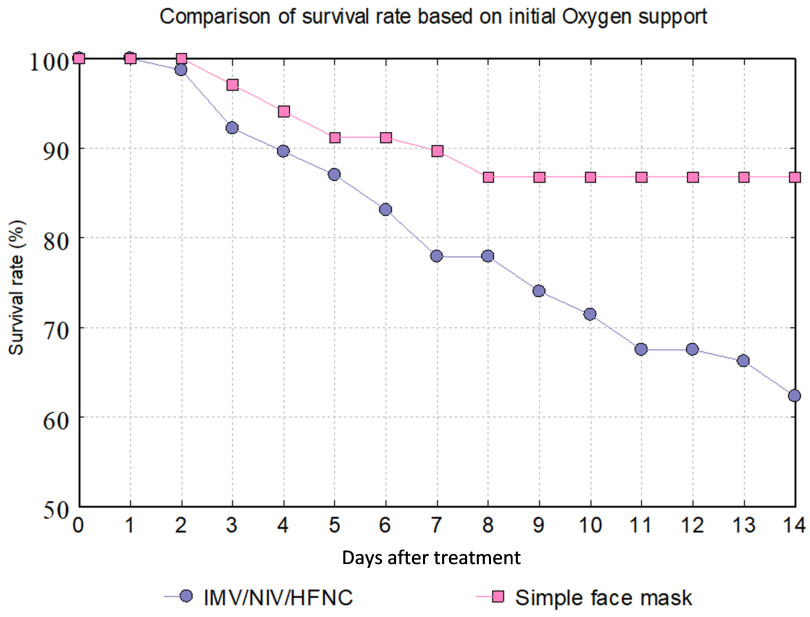

No. of Patients in Oxygen support groups at the end of study (%)		No. of patients in baseline Oxygen support groups (%)			
		Invasive (N=20)	NIV/HFNC (N=54)	O2 only (N=60)	Ambient air (N=4)
	Score	5	4	3	2
Invasive	5	16 (80)	14 (25.9)	6 (10)	0
NIV/HFNC	4	1 (5)	14 (25.9)	3 (5)	1 (25)
O2 only	3	1 (5)	6 (11.1)	14 (23.3)	0
Ambient air	2	2 (10)	20 (37)	37 (61.6)	3 (75)
Improvement		**4 (20)**	**26 (48.1)**	**37(61.6)**	**3(75)**