Original Article

Awareness Of Remdesivir Therapy Among Dental Students

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Abstract

Introduction: While several authorized medicines and research drugs have displayed antiviral effectiveness against the SARS-CoV-2 , there are currently no validated antiviral therapies for treating gravely ill patients with COVID-19. No particular antiviral drug has been shown to be successful in treating patients with extreme coronavirus disease 2019 . Remdesivir (GS-5734), a nuclear analog drug, has inhibitory activity on pathogenic animals and coronaviruses in humans.

Aim: The survey intented to evaluate the dental students ' awareness of Remdesivir therapy.

Materials And Method: This was a cross-sectional type of research based on a questionnaire which included 100 dental college students in Chennai. A self-designed questionnaire with ten questions generating knowledge and awareness amongst dental college students about Remdesivir therapy. Questionnaires were distributed via an online database survey world. Questions discussed understanding of Remdesivir treatment, signs, counter-inications, action mechanism and side effects. Data were collected and analyzed after the answers were obtained from 100 participants.

Results: 27% were aware about Remdesivir therapy . 15% were aware of the mechanism of action of Remdesivir therapy . 15% were aware of the indications of Remdesivir therapy . 12% were aware of the contraindications of Remdesivir therapy.14%.were aware of the side effects of Remdesivir therapy .

Conclusion: There was limited awareness among dental students regarding Remdesivir in managing viral infections. Intensified awareness and education programmes must be instituted to disseminate knowledge about Remdesivir therapy.

Keywords: Awareness, Remdesivir, viral

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INTRODUCTION

In the pandemic of serious acute respiratory syndrome coronavirus 2 (SARS-CoV-2, approximately 15% of infected adults experience extreme pneumonia require extra oxygen care and an estimated 5% progression to critical disease with hypoxaemic respiratory failure and acute respiratory distress syndrome with multi-organ failure demanding ventilation assistance, mostly for severe respiratory failure. Half of the coronavirus disease patients necessitating mechanical ventilation have died in hospitals, and the related burden on healthcare systems, particularly intensive care units, is overwhelming in various affected countries[1-6].

While several licensed drugs and interventional agents have already shown vitro antiviral effectiveness against SARS-CoV-2, there are currently no antiviral treatments with demonstrated efficacy in treating critically ill COVID-19 patients[7-9].No precise antiviral medication for treating people with acute coronavirus disease 2019 (COVID-19) has been proved effective. Remdesivir (GS-5734), an analog nucleoside prodrug, has inhibitory activity on morbific human and animal coronavirus, which include severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) in vitro, and restricts SARS-CoV-1, and SARS-CoV-2 reproduction in experimental animalsThe survey intented to evaluate the dental students ' awareness of Remdesivir therapy

Materials And Method

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Remdesivir therapy. Questionnaires were distributed via an online database survey world. Questions discussed understanding of Remdesivir treatment, signs, counter-inications, action mechanism and side effects. Data were collected and analyzed after the answers were obtained from 100 participants.

Results

27% were aware about Remdesivir therapy (Fig 1). 15% were aware of the mechanism of action of Remdesivir therapy (Fig 2) . 15% were aware of the indications of Remdesivir therapy (Fig 3). 12% were aware of the contraindications of Remdesivir therapy(Fig.4).14%.were aware of the side effects of Remdesivir therapy (Fig 5) .

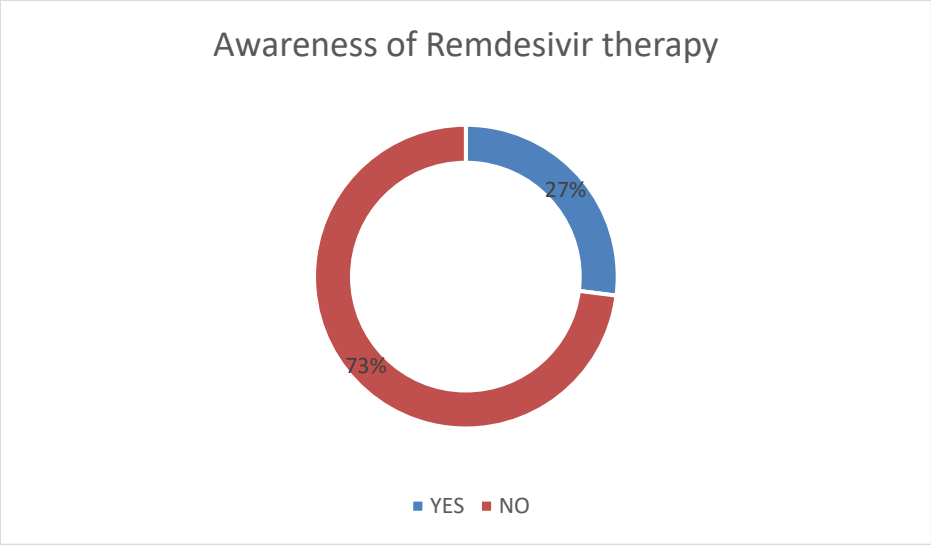

Fig 1: Awareness of Remdesivir therapy

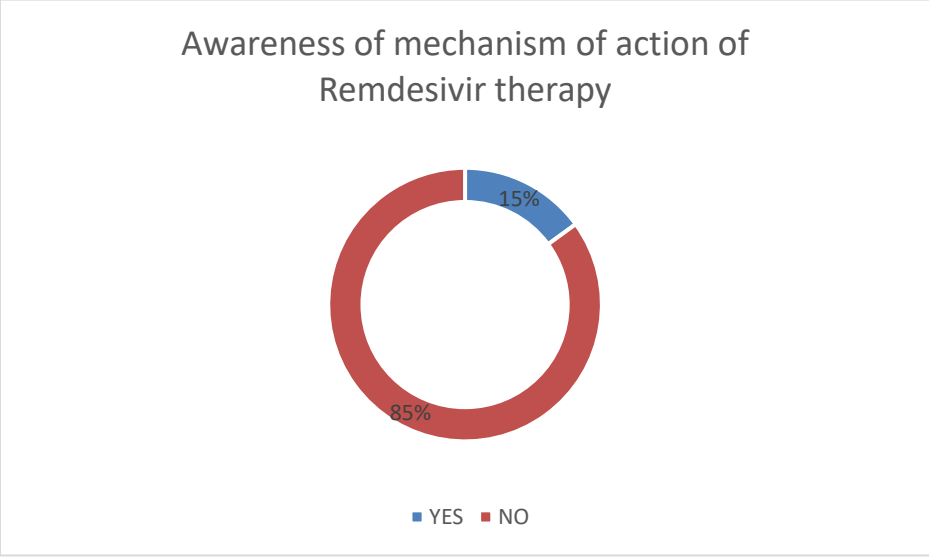

Fig 2: Awareness of mechanism of action of Remdesivir therapy

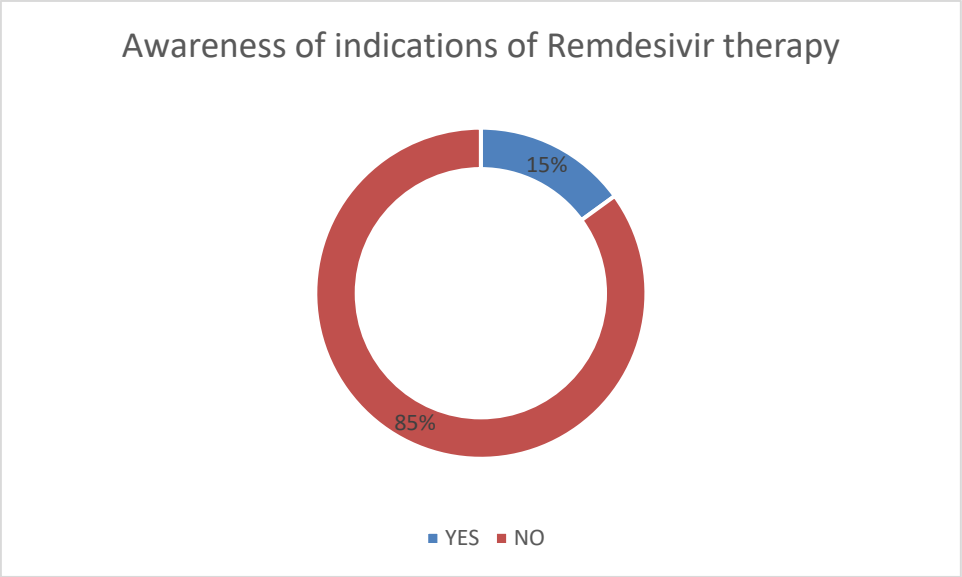

Fig 3: Awareness of indications of Remdesivir therapy

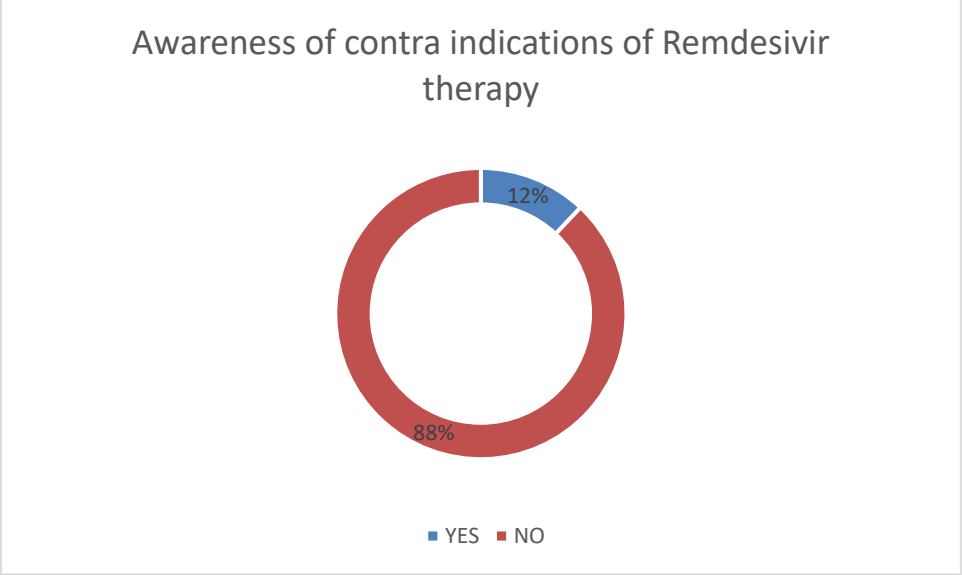

Fig 4: Awareness of contra indications of Remdesivir therapy

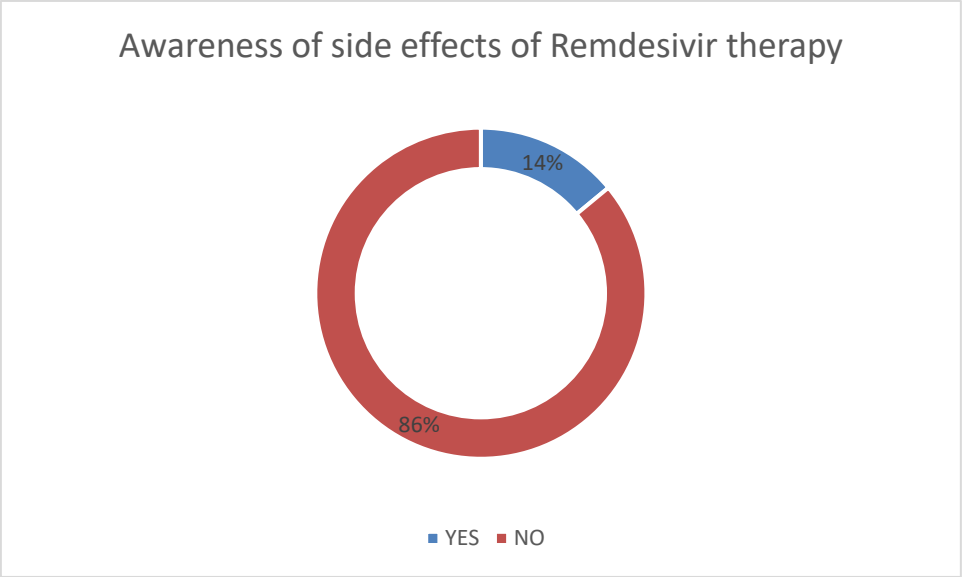

Fig 5: Awareness of side effects of Remdesivir therapy

Discussion

Remdesivir is monophosphoramidate adenosine analog drug with a diverse antiviral range including , pneumoviruses,filoviruses, paramyxoviridae, and coronaviruses.[10,11] In vitro conditions, remdesivir subdue all antecedently tested human as well the animal coronaviruses, including SARS-CoV-2, and shows antiviral and therapeutic impacts in animal model of SARS-CoV-1 and MERS.[12-16] Remdesivir was superior to a combined interferon beta and lopinavir – ritonavir regimen in a mortal murine model for MERS[15].

Remdesivir powerfully inhibits SARS-CoV-2 riposte in human pulmonary epithelial cells. Early remdesivir treatment has been shown to have important antiviral and clinical results in rhesus macaque model of SARS-CoV-2 .Intravenous remdesivir has been investigated for the treatment of ebola virus, where it was sufficiently tolerated but also less effectual than many monoclonal antibody therapies, been used in some nations in patients with COVID-19 depending on specific considerate use over several months. Case studies in critically ill patients with COVID-19 showed benefit. Nevertheless, the clinical antiviral effectiveness of COVID-19 remdesivir remains to be determined[17-20].

Constipation, thrombocytopenia, hypoalbuminaemia,anaemia, hypokalaemia, and significantly higher bilirubin have been the nearly prevalent adverse events in remdesivir group; and, in placebo group, the most frequent were hypoalbuminaemia, indigestion, iron deficiency, hypokalaemia, elevated aspartate aminotransferase, exaggerated cholesterol levels, and inflated total bilirubin.

Continuing research with larger sample sizes should enhance understanding of the COVID-19 impact of remdesivir.In addition, strategies for enhancing remdesivir's antiviral potency such as higher-dose regimen, conjunction with the other antiviral, or SARS-CoV-2 nonsubjective antibodies and reducing immunopathological host reaction that lead to COVID-19 severity require comprehensive study a0mng patients with some extreme COVID-19 rates.

Conclusion

There was limited awareness among dental students regarding Remdesivir in managing viral infections. Intensified awareness and education programmes must be instituted to disseminate knowledge about Remdesivir therapy.

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