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ORIGINAL ARTICLE

Assess the Results of Covid-19 in Patients with Liver Disease Cirrhosis

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ABSTRACT

Objective: The purpose of this research is to see how coronavirus affects people with cirrhosis, a type of chronic liver disease.

Study Design: Retrospective/observational

Place and Duration: Conducted at Khyber Teaching Hospital Peshawar, during from April 2021 to Oct 2021.

Methodology: This study included 100 covid-19 individuals of both genders with or without chronic liver disease. There were two groups of patients. Group I (50 patients with cirrhosis) and Group II (without cirrhosis 50 patients). The mortality outcomes of the two groups were compared. SPSS 25.0 was used to analyze all of the data.

Results: There were 31 (62%) males and 19 (38%) were females with mean age 43.31±=7.61 years in group I while in group II 32 (64%) and 18 (36%) patients were males and females with mean age 46.01±5.23 years. Patients with cirrhosis died at a higher rate than those without it, with a p-value of 0.0001 (34 percent vs. 10%).

Conclusion: Patients with cirrhosis who also had coronavirus illness had a higher incidence of poor outcomes.

Keywords: Mortality, Corvid-19, Chronic Liver Disease

INTRODUCTION

SARS-CoV-2 (Severe Acute Respiratory Syndrome Coronavirus 2) is an RNA virus that was first detected in humans in December 2019 in Wuhan, China. It is the second virus to be identified in humans. During the intervening period, the virus has spread rapidly throughout the world, resulting in the coronavirus sickness 2019 (COVID-19), which is still wreaking havoc on global health[1]. When infected with SARS-CoV-2, the vast majority of persons infected experience no symptoms or just mild symptoms such as fever, cough, anosmia, and headaches. Patients with serious lung disease, which can result in respiratory compromise and eventually death, usually develop over a period of 10 days. If not treated immediately, this can result in multi-organ failure, coagulopathy, and mortality if left untreated. [2-4] The fact that oxygen supplementation, invasive ventilation, and other supportive techniques are now considered standard of care in hospitalised patients does not diminish the reality that mortality remains high among those suffering from severe disease. Now that severe COVID-19 has been demonstrated to be connected with a variety of risk factors, it is possible to identify them.[5-6]

Throughout the course of the pandemic, most politicians fought to keep their populations safe from infection, relying on a growing amount of scientific information to guide their decisions. To protect those who are most at risk of contracting severe COVID-19, it has been recommended that they'shield,' which includes absolutely avoiding any and all social contact. Being able to tailor public health advise to distinct patient subpopulations in the future will be dependent on our ability to understand the influence of varied illness morphologies on COVID-19 susceptibility and clinical outcomes in the present.

According to a number of recent research, COVID-19 is associated with significant mortality rates in cirrhotic patients. While these investigations were confined to small cohorts of less than 50 patients, they did not include a control group free of CLD and instead relied on hospital coding data, which can result in incorrect classification of the severity of liver disease in patients. [6-10]. Furthermore, due of the significant global variation in the aetiology of liver disease, many investigations were restricted to specific geographical regions, limiting the generalizability of the findings.

The purpose of this research is to see how coronavirus affects people with cirrhosis, a type of chronic liver disease.

MATERIAL AND METHODS

This retrospective/observational study was conducted at Conducted at Khyber Teaching Hospital Peshawar, during from April 2021 to Oct 2021 and comprised of 100 patients. After receiving written agreement, the detailed demographics of the patients, including their age and gender, were recorded. Patients under the age of 18 years and those who did not agree to participate were omitted from this study.

Patients with or without chronic liver disease were enrolled in this study if they were between the ages of 18 and 60 years old and of either gender. The reporting doctor classified CLD, with or without cirrhosis, as the stage of liver disease at which the disease had progressed. The reporting doctor then categorised cirrhotic patients into Child-Pugh classes based on their haemoglobin levels. To define the groups in this work, the words CLD without cirrhosis, cirrhosis, whole CLD cohort (CLD), and persons without liver disease will be used interchangeably throughout the text (non-CLD). When a BMI of greater than

30 kg/m2 was measured, obesity was considered to be present; in the absence of BMI data, obesity was believed to be absent. The ethnicity of only White people (the dominating classification) was taken into consideration while analysing the data. In cases where the ethnicity of a non-CLD group member could not be determined, it was believed that they were of White descent.

Patients were divided into two groups based on their symptoms. Group I (consisting of 60 patients with cirrhosis) and group II (consisting of 60 individuals without cirrhosis). The differences in mortality rates between the two groups were investigated. SPSS 25.0 was used to analyze all of the data.

RESULTS

There were 31 (62%) males and 19 (38%) were females with mean age 43.31±7.61 years in group I while in group II 32 (64%) and 18 (36%) patients were males and females with mean age 46.01±5.23 years.(table 1)

Table 1: Demographics of enrolled cases at the time of enrollment

Variables	Group I	Group II
Mean age (years)	43.31±7.61	46.01±5.23
Gender		
Male	31 (62%)	32 (64%)
Female	19 (38%)	18 (36%)

Those with cirrhosis had a longer hospital stay in our study as compared to patients without cirrhosis, according to the findings. In our study, we discovered that patients with cirrhosis had a higher death rate when compared to individuals without cirrhosis (34 percent vs. 10 percent), and that this difference was statistically significant (p=0.0001).(table 2)

Table 2: Comparison of hospital stay and mortality among both groups

Variables	Group I	Group II
Mean Hospital stay (days)	41.12±5.32	15.11±12.47
Mortality		
Yes	17 (34%)	5 (10%)
No	33 (66%)	45 (90%)

DISCUSSION

People's behaviour has been affected in unimaginable ways as a result of the COVID-19 epidemic. But certain habits, such as alcohol drinking, eating and exercising improperly, as well as patient contact with medical services, may be detrimental to liver health. A well-known symptom of the epidemic has been increased alcohol use, which has been particularly prevalent during periods of social isolation. When compared to the same period last year, an additional £160 million was spent hoarding alcohol in the weeks leading up to the first national 'lockdown' in the United Kingdom.[11,12]

The goal of this study was to see if there was a link between coronavirus illness and worse outcomes in terms of mortality in individuals with cirrhosis. A total of 100 individuals of both genders were presented in our study, with the majority of the patients (63%) being men. Patients ranged in age from 18 to 60 years old. We divided the patients into two equal groups, I and I, with patients with cirrhosis in group I and patients without cirrhosis in group III. The patients in groups I and II were (43.31±7.61, 46.01±5.23 years old, respectively). These findings were similar to those seen in prior investigations.[13,14]

Those with cirrhosis had a longer hospital stay in our study as compared to patients without cirrhosis, according to the findings. In our study, we discovered that patients with cirrhosis had a higher death rate when compared to individuals without cirrhosis (34 percent vs. 10 percent), and that this difference was statistically significant (p=0.0001). Similarly to bactérial infections in patients with ACLF, the outcomes of SARS-CoV-2 infection are comparable to those of other acute precipitants. In a recent review, researchers found that COVID-19 patients had poorer outcomes as compared to those who had bacterial infection. [15]. Patients with COVID-19 were subjected to clinical trials in which medications such as hydroxychloroquine, re-desivir, various antivirals, and plasma treatment were evaluated. None of these treatments has been found to make a significant difference in the outcome. Furthermore, the majority of them are linked to the liver. As a result, effective treatments are urgently required to improve outcomes. As a general rule, we followed the standard recommendations for the prevention and control of potential difficulties. It was decided to postpone the endoscopy for UGIB patients, and we closely monitored patients who were using vasoconstrictor drugs such as terlipressine and carvedilol for the goal of secondary prevention. The proportion of COVID19 patients with alcoholic aetiology of CLD was lower than previously anticipated, when compared to our past experience, as revealed by our findings. Prior to the implementation of COVID, alcoholism was the most common reason for CLD admissions, with the highest proportion of patients admitted as a result of this condition. [16-18]

CONCLUSION

Patients with cirrhosis who also had coronavirus illness had a higher incidence of poor outcomes.

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