

Liver Involvement in Covid

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INTRODUCTION

COVID-19 is caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). As of 1 May 2023, there have been more than 700 million cases worldwide and 6 million deaths. Although fever and respiratory symptoms predominate in coronavirus infections, a range of liver manifestations is seen in COVID-19 patients. However, the detailed patterns of their presentation, pathogenesis, and management are poorly defined.

OBJECTIVES

To outline the important liver manifestations of Covid, their diagnosis and management, and the potential pathogenetic mechanisms

MATERIALS & METHODS

We searched PubMed, Google Scholar, and Google from January 2020 to April 01, 2023, for articles written in English that describe the liver effects of Covid. Any additional studies were included by scanning the list of references. The initial selection was done by reading the title and the abstract. Reference lists of the full-text articles were scanned to identify any additional studies. All types of research articles, including original research articles, reviews, case series, short communications, and case reports were considered. A total of 103 full-text articles were assessed and 59 were included in the analysis.

RESULTS & DISCUSSION

- A majority of Covid-associated liver symptoms are mild and self-limiting and management is supportive.
- Viral cytopathic effects, exaggerated immune response/systemic inflammatory response syndrome, hypoxia-induced changes, vascular changes due to coagulopathy, endothelitis, cardiac congestion from right heart failure, and drug-induced liver injury are the predominant factors that contribute to hepatic involvement in Covid.
- The primary investigations of liver involvement in Covid patients include liver function tests and abdominal imaging.
- Although SARS-CoV-2 RNA is found in liver biopsies, liver biopsy does not significantly influence clinical management.
- Special care is needed for those with cirrhosis, non-alcoholic fatty liver disease, hepatocellular carcinoma, hepatitis B and C infections, alcoholic liver disease and liver transplants (LTs).

CONCLUSION

A range of factors contributes to liver involvement in Covid. Those with pre-existing chronic liver disease should be prioritized for Covid vaccination and additional Covid-vaccine doses considered for LT recipients.

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