Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Purpose: COVID-19 has emerged as the "first pandemic of the 21st Century" and continues to pose challenges to global health. Currently, the most common symptomatic management of COVID-19 patients involves isolation and oxygen therapy. However, present protocols are still deemed insufficient; hence, other treatment options are being considered and tested. This includes convalescent plasma therapy (CPT), which involves a strategy of passive immunization.

With this, the primary objective of this systematic review/meta-analysis is to collate, systematically compare, and synthesize available clinical trials involving convalescent plasma (CP), more specifically, high-titer CP, as adjunctive therapy in the treatment of patients with severe COVID-19.

Methods & Materials: This was accomplished by comparing the effect of high-titer CP with standard treatment alone, in terms of mortality rate and viral clearance, by reviewing selected studies based on an inclusion-exclusion criteria and synthesizing selected studies through qualitative analysis and meta-analysis.

Results: A total of five studies were included, which consist of: three randomized clinical trials (RCTs); one retrospective trial; and one single arm trial. Four studies were subjected to meta-analysis for mortality rate. For instance, it was determined that the overall incidence mortality rate of patients who received high-titer CP is 11.59% of the experimental group, while the incidence mortality rate of patients who only received standard care is 20.25% of the control group (Risk Ratio (RR), 0.71; 95% confidence interval (CI),0.46-1.09; P-value = 0.46). Moreover, three of the included trials were subjected to qualitative analysis, all of which depicted undetectable viral levels in some patients as early as 3 days, while others exhibited a steady decline.

Conclusion: Treatment of COVID-19 with the use of high-titer convalescent plasma as an adjunctive therapy, compared with standard care or treatment, was not significantly associated with reduction of all-cause mortality. High-Titer CPT also shows potential in increasing COVID-19 viral clearance, which indicates an antiviral effect; however, controlled clinical trials with comparator or placebo groups are needed to further support these findings.

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Investigation of SARS-CoV-2 RNAemia in the convalescent plasma of COVID-19 patients

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Purpose: The novel severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), is responsible for the ongoing global COVID-19 disease pandemic. Convalescent plasma therapy (CPT) is one of the promising therapies being tried for COVID-19 patients. However, the presence or disappearance of SARS-CoV-2 RNA (RNAemia) in convalescent plasma is unclear and the prognostic implication of viral RNA detection in these samples is not fully understood. Hence, we aimed to investigate SARS-CoV-2 RNAemia in the convalescent plasma of COVID-19 patients.

Methods & Materials: Convalescent plasma samples from donors with a previous laboratory-confirmed SARS-CoV-2 infection were included in the study. Samples were screened for the presence of Anti-SARS CoV-2 IgG antibodies using a commercially available enzyme-linked immunosorbent assay targeting the whole-cell antigen of SARS-CoV-2. Then plasma samples were pooled by the mixing of five samples. RNA extraction and real-time RT-PCR for SARS-CoV-2 specific gene targets was performed for pooled plasma samples.

Results: A total of 250 convalescent plasma samples of COVID-19 patients with different disease severity were included in the study; of these, 149 (59.6%) were found to have anti-SARS-CoV-2 antibodies using serological tests. SARS-CoV-2 RNA was not detected in any of the convalescent plasma samples.

Conclusion: SARS-CoV-2 RNAemia was not found in individuals with a previous laboratory-confirmed SARS-CoV-2 infection at least 28 days after the resolution of their symptoms. All RT-PCR positive COVID-19 patients subsequently may not develop antibodies. Our study showed that screening for neutralizing antibody titres is more important rather than SARS-CoV-2 RNA detection in convalescent plasma samples for therapeutic use.

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Emerging COVID-associated Mucor-Aspergillosis – A Need of Separate Definition

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Purpose: During COVID pandemic, several cases of isolated COVID-associated mucormycosis and COVID-associated pulmonary aspergillosis have been reported. There is no data regarding both infections in same patients. Herein, we present series of ten consecutive cases with dual invasive molds in patients infected with SARS-CoV-2.

Methods & Materials: Among patients hospitalized with diagnosis of COVID in May 2021 at a tertiary care center in North India, ten microbiologically confirmed dual/mixed COVID-associated mucor-aspergillosis (CAMA) were analysed. We hypothesised case definition for Covid-associated mucormycosis and aspergillosis infection derived from EORTC/MSG, as possible, probable, and proven CAMA.

Results: Six men and four women had a mean age of 49.2 ± 8.8 years. All patients were diabetic with history of COVID pneumonia. Patients presented with headache, fever, altered sensorium, decrease vision, nasal obstruction, periorbital swelling, nasal stuffiness, nasal discharge. *Rhizopus arrhizus* was isolated in all, *Aspergillus flavus* in seven and *Aspergillus fumigatus* in three patients. Patient 2,5,6,8,9 were histopathologically proven dual infections with patient 3 & 7 having only angioinvasion. Patients received amphotericin B and all except 3 were managed by surgical debridement, the remaining 3 succumbed.