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.

CHEST Annual Meeting | October 18-21 2020

Late-breaking Abstract

SESSION TITLE: Late-breaking Abstract Posters
SESSION TYPE: Original Investigation Posters
PRESENTED ON: October 18-21, 2020

THE ANTI-INFECTIVE AND IMMUNOMODULATOR PARADOX: INCREASED RISK OF COINFECTION WITH HYDROXYCHLOROQUINE IN CRITICAL PATIENTS WITH COVID-19

DANIELA TRELLES GARCIA VALERIA TRELLES GARCIA GUILLERMO RODRIGUEZ-NAVA MARIA YANEZ-BELLO DANIEL BUSTAMANTE-SOLIZ ELIZABETH PATINO CHUL WON CHUNG AND HARVEY FRIEDMAN

PURPOSE: Coronavirus disease 2019 (COVID-19) is a new entity that has rapidly spread globally, claiming thousands of lives. Hydroxychloroquine, an agent used to prevent malaria and to treat autoimmune disorders, was being administered to COVID-19 cases to slow or prevent the disease. However, its use was rushed without sufficient evidence on efficacy and safety.

METHODS: We retrospectively reviewed a de-identified dataset of 98 patients with COVID-19 admitted to a community hospital Intensive Care Unit (ICU) in Cook County, Illinois, from March 2020 to May 2020. Only confirmed COVID-19 cases, defined by a positive result on a reverse-transcriptase-polymerase-chain-reaction (RT-PCR) assay of a specimen collected on a nasopharyngeal swab were included. Co-infections were identified as the presence of positive blood cultures, sputum cultures, Legionella or pneumococcus urine antigen test, or respiratory viral panel. We performed a multivariable logistic regression analysis forcing variables that could be associated with increased risk of infection into the model, including central line placement, intubation, tocilizumab, intravenous steroids, colchicine, and hydroxychloroquine.

RESULTS: Of 98 patients, the median age was 67 years (interquartile range, 57.75 – 74.25 years), 66 (67.3%) were males, 32 (32.7%) were Caucasian, and 56 (57.1%) were admitted from a Long-Term Care Facility (LTCF). 83.7% of the individuals had two or more comorbidities; the most frequent were hypertension (68.4%) and diabetes (51%). The most common targeted interventions included intravenous steroids (64.6%), azithromycin (42.9%), and hydroxychloroquine (34.7%). Among the group treated with hydroxychloroquine, 16 (47.1%) patients were found to have co-infections compared to 13 (20.3%) patients not treated with hydroxychloroquine (p=.006). The multivariable logistic regression showed increased odds of co-infection associated with the administration of hydroxychloroquine (odds ratio [OR] 4.04; 95% CI 1.37 – 11.98, p=.012; Hosmer and Lemeshow goodness-of-fit test p=.724) and central line placement (OR 7.27; 95% CI 1.93 – 27.31; p=.003).

CONCLUSIONS: In this retrospective analysis of 98 adults with COVID-19 hospitalized in a community ICU, the patients who received hydroxychloroquine were found to have increased risk of co-infections.

CLINICAL IMPLICATIONS: Hydroxychloroquine may increase the risk of co-infections in critical COVID-19 patients

DISCLOSURES: No relevant relationships by Daniel Bustamante-Soliz, source=Web Response

No relevant relationships by Chul Won Chung, source=Web Response

No relevant relationships by Harvey Friedman, source=Web Response

No relevant relationships by Elizabeth Patino, source=Web Response

No relevant relationships by Guillermo Rodriguez-Nava, source=Web Response

No relevant relationships by Daniela Trelles Garcia, source=Web Response

No relevant relationships by Valeria Trelles Garcia, source=Web Response

No relevant relationships by Maria Yanez-Bello, source=Web Response

DOI: https://doi.org/10.1016/j.chest.2020.09.048

LATE-BREAKING ABSTRACT