Hydroxychloroquine-related Rash in COVID-19 Infected Patient

Ramzi Kurd MD[1,3], Michael Zuckerman MD[1,3] and Eli Ben-Chetrit MD[2,3]

Departments of [1]Corona C, [2]Infectious Diseases and [3]Medicine, Shaare Zedek Medical Center, affiliated with the Hebrew University, School of Medicine, Jerusalem, Israel

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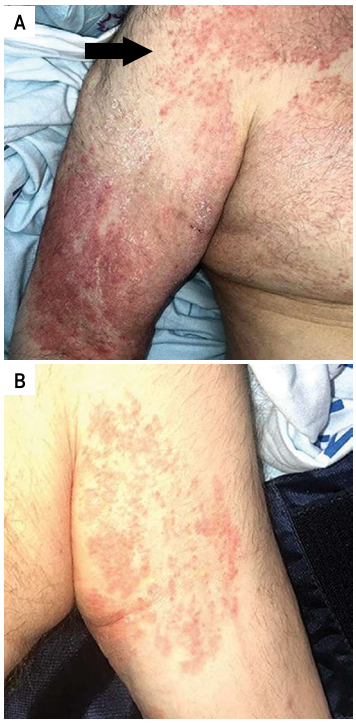
A 77-year-old male patient was admitted to the isolated coronavirus disease-2019 (COVID-19) medical wing due to fever and shortness of breath. Past medical history included ischemic heart disease. Oxygen saturation on ambient air was 90%. The chest radiograph revealed bilateral pulmonary infiltrates. A nasopharyngeal swab specimen tested positive for severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2). Hydroxychloroquine sulfate (HCQ) was administered orally for 5 days. Twelve days later, a widespread posriasiform skin eruption developed over the patient's upper torso and arms [Figure 1A, Figure 1B]. The rash was attributed to HCQ treatment as no other offending agent was acknowledged.

Figure 1. A widespread posriasiform skin eruption over the upper torso [A] and arms [B]. Several foci imply the possibility of acute generalized exanthematous pustulosis (arrow)



In addition to QT prolongation, cardiac arrhythmias, hypoglycemia, and neuropsychiatric symptoms; various cutaneous reactions have been previously recognized after HCQ use, including acute generalized exanthematous pustulosis [1]. Drug-related eosinophilia and systemic symptoms have also been reported.

During the COVID-19 pandemic, preliminary local treatment guidelines in China, Italy, and France, suggested prescribing HCQ to moderately or severely ill patients. Israel, the United States, and other European countries adopted this practice [2], although it was based on limited observational studies and unpublished data [3]. Recent studies of HCQ treatment in COVID-19 patients have shown no clinical benefit, and some studies demonstrated possible harm [4]. Nevertheless, HCQ was administered to thousands of patients. Moreover, the liberal and widespread use of HCQ during the pandemic has lead to a major shortage of the drug in many pharmacies, leaving systemic lupus erythematosus patients (of which the benefit of HCQ is proven) without their medication [5]. This situation [Figure 1] provides a reminder that prescribing a drug without an established, evidence-based clinical justification may result in complications.

Until the benefit of HCQ in COVID-19-infected patients is confirmed in randomized-controlled trials, this medication should not be administered to COVID-19 patients.

Correspondence

Dr. E. Ben-Chetrit

Dept. of Infectious Diseases, Shaare Zedek Medical Center, Jerusalem 91031, Israel

Phone: (972-2) 666-6340

email: elibc1@yahoo.com

References

1. Paradisi A, Bugatti L, Sisto T, Filosa G, Amerio PL, Capizzi R. Acute generalized exanthematous pustulosis induced by hydroxychloroquine: three cases and a review of the literature. *Clin Ther* 2008: 30: 930-40.
2. Itelman E, Wasserstrum Y, Segev A, et al. Clinical characterization of 162 COVID-19 patients in Israel: preliminary report from a large tertiary center. *IMAJ* 2020; 22 (5): 271-4.
3. Gautret P, Lagier JC, Parola P, et al. Hydroxychloroquine and azithromycin as a treatment of COVID-19: results of an open-label non-randomized clinical trial [published online ahead of print, 2020 Mar 20]. *Int J Antimicrob Agents* 2020; 105949.
4. Chorin E, Wadhwani L, Magnani S, et al. QT Interval prolongation and torsade de pointes in patients with COVID-19 treated with hydroxychloroquine/azithromycin. *Heart Rhythm* 2020; S1547-5271 (20) 30435-5.
5. Peschken CA. Possible consequences of a shortage of hydroxychloroquine for patients with systemic lupus erythematosus amid the COVID-19 pandemic. *J Rheumatol* 2020; 47: 787-90.