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Multiple drugs

Toxic epidermal necrolysis and off label use: case report

A 78-year-old woman developed toxic epidermal necrolysis (TEN) during treatment with ceftriaxone, levofloxacin and piperacillin/tazobactam for bacterial superinfection, and off label treatment with hydroxychloroquine for COVID-19. Additionally, she received off label treatment with canrenoic-acid, dexamethasone, enoxaparin-sodium, immune-globulin, methylprednisolone, oseltamivir, pantoprazole and prednisone for the COVID-19 infection [routes and not all dosages stated].

The woman, who had a history of hypertension, obesity, unstable angina and type-2 diabetes, was hospitalised due to respiratory insufficiency with fever requiring non-invasive ventilation. Subsequently, she was diagnosed with COVID-19 lung infection along with the bacterial superinfection. Hence, she started receiving off label treatment with hydroxychloroquine 200mg two times a day, enoxaparin-sodium [sodium enoxaparin], dexamethasone, canrenoic-acid [potassium canrenoate], oseltamivir and pantoprazole was started. Additionally, she received paracetamol for fever, and ceftriaxone (for 1 day) followed by piperacillin/tazobactam (for 4 days) for the bacterial superinfection. Initially, she was treated in sub-ICU for 18 days, and then shifted to the department of general medicine as improvement was noted in her condition. At the time of arrival (at the department of general medicine), she was noted with violaceous erythematous rash mainly involving the flexural folds. At this time, her ongoing medications included hydroxychloroquine along with levofloxacin (which was started one day prior). In 3 days, the rash rapidly progressed and covered approximately 70% of her total body surface area. Development of typical targetoid lesions, formation of blisters with subsequent skin detachment, and severe desquamation of the buccal and nasal mucosa were also noted. Due to severe skin pain, morphine was administered. Nikolsky's sign was present. Based on the examinations, she was diagnosed with TEN.

All the drugs were discontinued, and the woman received treatment with IV bolus methylprednisolone 1 mg/kg and IV immune-globulin 1 mg/kg for three days. She was then started on oral prednisone 1 mg/kg every day. After complete recovery, the prednisone therapy was tapered in a month. Based on the calculation of the ALDEN scores, hydroxychloroquine was considered as the most likely suspect, and piperacillin/tazobactam, ceftriaxone and levofloxacin were considered as lesser suspected drugs. Only paracetamol, pantoprazole and enoxaparin-sodium were continued after the TEN reaction.

Rossi CM, et al. A case report of toxic epidermal necrolysis (TEN) in a patient with COVID-19 treated with hydroxychloroquine: Are these two partners in crime. Clinical and Molecular Allergy 18: 19, No. 1, 6 Oct 2020. Available from: URL: http://doi.org/10.1186/s12948-020-00133-6