

Hydroxychloroquine/immunosuppressants

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Delayed viral clearance, drug interaction and off label use: 3 case reports

In a preliminary single center study (between March to April 2020; Italy), 3 men, aged 56–69 years were described, of whom, 2 men had delayed viral clearance during treatment with tacrolimus, mycophenolate mofetil and prednisone while the remaining one man had elevated levels of everolimus during concomitant administration of everolimus and hydroxychloroquine. Additionally, out of these 3 men, 2 men received an off-label treatment with hydroxychloroquine for COVID-19 [*routes, duration of treatments to reactions onset and outcomes not stated; not all dosages stated*]

This report describes the 69-year-old man (patient 1 described in the article): The man, who had undergone liver transplantation, diagnosed with COVID-19 post-operatively. He had been receiving immunosuppressant drug therapy with tacrolimus, mycophenolate mofetil 750mg thrice daily and prednisone. He was then transferred to a COVID unit, and received an off-label treatment with hydroxychloroquine 200mg twice daily for 16 days. The dose of mycophenolate mofetil was reduced to 500mg twice daily. He was otherwise asymptomatic and had uneventful course. He was discharged and advised to home quarantine on post-operative day 27. At more than 2 months follow-up, he was alive and symptom free; however, he was still waiting for confirmation of viral clearance, as he tested positive on the last nasopharyngeal swab done. It was noted that his delayed viral clearance was associated with immunosuppressant drug therapy.

This report describes the 56-year-old man (patient 3 described in the article): The man, who had undergone liver transplantation, was found positive for COVID-19. He had been receiving immunosuppressant drug therapy with tacrolimus and everolimus 1.5mg thrice daily. Due to mild presentation, he was discharged home and advised to home quarantine after a 48 hours observation period. During the observation period, no specific treatment except withdrawal of tacrolimus was given. However, 9 days later he was found to have bilateral interstitial pneumonia. Subsequently, he was hospitalised, and started receiving an off-label treatment with hydroxychloroquine 200mg twice daily for COVID-19. But, his trough level of everolimus was found to be elevated possibly due to pharmacological interaction with hydroxychloroquine. Thus, his everolimus dosing was then adjusted.

This report describes the 58-year-old man (patient 4 described in the article): The man, who had undergone liver transplant was found to have COVID-19, with presenting symptoms. He had been receiving immunosuppressant drug therapy with tacrolimus, mycophenolate mofetil and prednisone. Due to absence of presenting COVID-19 symptoms, no specific treatment was provided. After more than 2 months, he was found to have delayed viral clearance. It was noted that his delayed viral clearance was associated with immunosuppressant drug therapy.