

Chloroquine/tocilizumab**S****Leucopenia and liver injury following off-label use: case report**

A 63-year-old man developed leucopenia and liver injury during off-label treatment with chloroquine and tocilizumab for corona virus disease-2019 (COVID-19).

The man was diagnosed with severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) infection i.e., COVID-19 on 17 February 2020. His medical history was significant for hypertension. Three days later, he presented with fever, mild cough followed by development of chest tightness. On evaluation, he was detected with bilateral patchy of ground-glass opacities on 24 February 2020. He was thus hospitalised. After admission, he started receiving off-label therapy with oral chloroquine 500mg bid, which was maintained for 7 days. He also received methylprednisolone to inhibit inflammation and reduce pulmonary exudation, which was maintained for 5 days. On hospital day 4, he experienced worsening chest tightness and dyspnoea occurred suddenly. He also underwent various laboratory examinations. He immediately received off-label therapy with a single doses of IV tocilizumab 8 mg/kg. On hospital day 5, oxygenation index increased from 144mm Hg to 284mm Hg. On hospital day 6, IL-6 started to decline gradually after reaching the peak, and hypersensitive C-reactive protein decreased significantly after injection. After tocilizumab injection, lymphocytes count increased significantly ($0.31\text{--}0.82 \times 10^9$). Finally, he was clinically improved with gradual decrease in oxygen consumption. On hospital day 13, a chest CT scan showed ground-glass opacities were reduced in size and density, confirming significant improvement. However, on hospital day 10, there was a mild impairment of liver function. On hospital day 16, he was observed with a transient decrease in white blood cells. He was eventually diagnosed with leucopenia and liver injury induced by chloroquine and tocilizumab [*times to reaction onsets not stated*].

The man relieved leucopenia by himself, and liver injury was reduced by polyunsaturated phosphatidylcholine. Ultimately, he was clinically recovered and was sent to the isolation point to observe for 14 days.