

Image

Methotrexate in compassionate use improved acute pneumonia and myocarditis in a patient with COVID-19

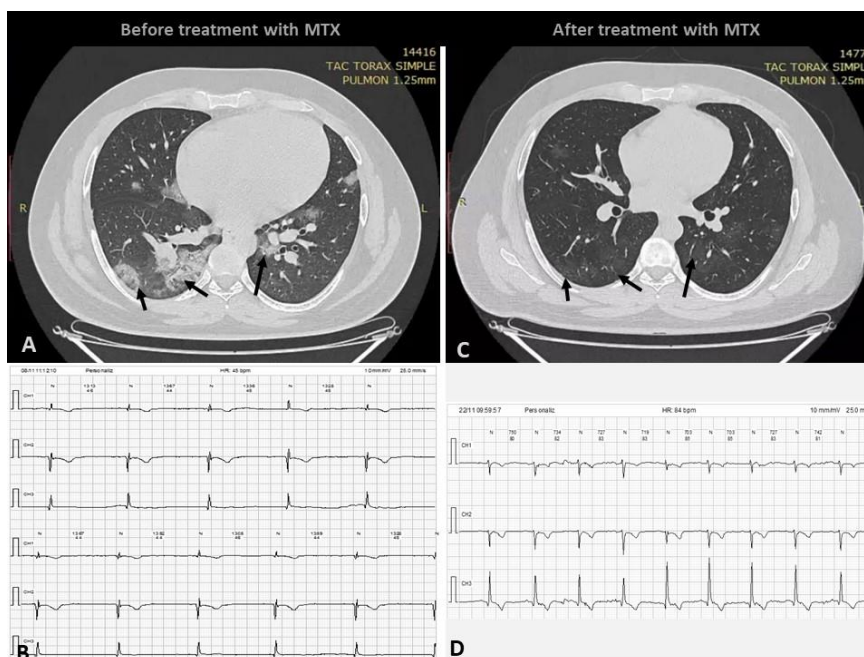
El metotrexato en uso compasivo mejoró la neumonía y miocarditis aguda en un paciente con COVID-19

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Chest CT scan of a 26-year-old Honduran male with COVID-19 and moderate pneumonia (A, arrows). Due to tocilizumab shortage, compassionate use of methotrexate (MTX) was done in a single 25mg IV dose by day 11 of disease, under monitoring by an ad-hoc ethics commission. Two weeks after initial clinical improvement, he developed acute myocarditis with atrioventricular block (B). Remission occurred after a second dose of the drug (C, D). MTX is well known by its use in several oncological and autoimmune conditions, and by its potential in reducing phosphorylation of JAK1/STAT3 and IL6 expression. Several reports suggest that MTX could be repurposed as therapy for the cytokine storm due to SARS-CoV-2.

Bibliographic References. Gowda, P., Patrick, S., Joshi, S. D., Kumawat, R. K., & Sen, E. (2021). Repurposing Methotrexate in dampening SARS-CoV2-S1-Mediated IL6 Expression: lessons learnt from lung cancer. *Inflammation*, 1–8. <https://dx.doi.org.10.1007/s10753-021-01536-6>

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