

Clinical Image

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Life-threatening secondary infection in a patient with Covid-19 pneumonia treated with tocilizumab: A picture series**Prabhashini Kumarihamy^{1*}; Ashani Ratnayake²; Hiranya Abeysinghe¹; Sahan Perera¹; Shirley Ekanayake³**¹Consultant Physician, Specialised COVID-19 Treatment Unit, Base Hospital, Teldeniya, Sri Lanka.²Consultant Anaesthetist, Specialised COVID-19 Treatment Unit, Base Hospital, Teldeniya, Sri Lanka.³Consultant Radiologist, Specialised COVID-19 Treatment Unit, Base Hospital, Teldeniya, Sri Lanka.***Corresponding Authors: Prabhashini Kumarihamy**

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Clinical image description

As of February 2021, cumulative high-certainty data shows that Tocilizumab decreases the risk of mechanical ventilation in hospitalized patients with Covid-19 [1]. COVID-19 patients receiving tocilizumab may have a theoretical risk of acquiring a secondary infection due to immunosuppression [2]. Here we present a series of chest radiographs of a patient presented with severe Covid pneumonia who improved rapidly with tocilizumab but died of secondary infection later on.

A 33 year old male with a history of type 1 diabetes for 8 years was transferred from a local hospital due to desaturation with a history of fever, cough, difficulty in breathing and positive rapid antigen test for Covid-19. On admission, he was tachypneic, tachycardic with a heart rate of 116/min, blood pressure of 125/70 mmHg and pulse oximetry reading was of 90% on air. He deteriorated rapidly over the next few hours requiring intubation and mechanical ventilation. He was continued with intravenous antibiotics, dexamethasone and prophylactic anticoagulation. The first chest x-ray on the day of admission showed widespread consolidation involving all lobes with both lungs with relative sparing of both apical regions (Figure 1). He was treated with Tocilizumab with his rapid deterioration.

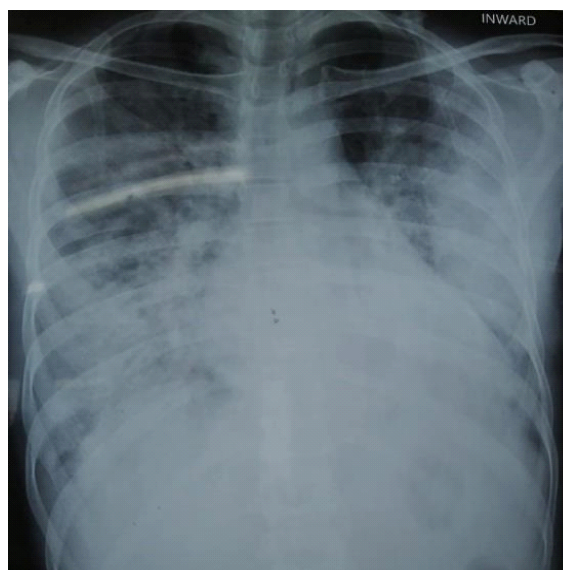


Figure 1: Widespread consolidation involving all lobes with both lungs with relative sparing of both apical regions.

A chest x-ray taken after ten hours of Tocilizumab showed radiological improvement with significant resolution of consolidation in both lungs (Figure 2) with CRP of 125 and procalcitonin of 0.02 ng/ml. He was started to wean off the ventilator and was able to maintain with minimal ventilator support.

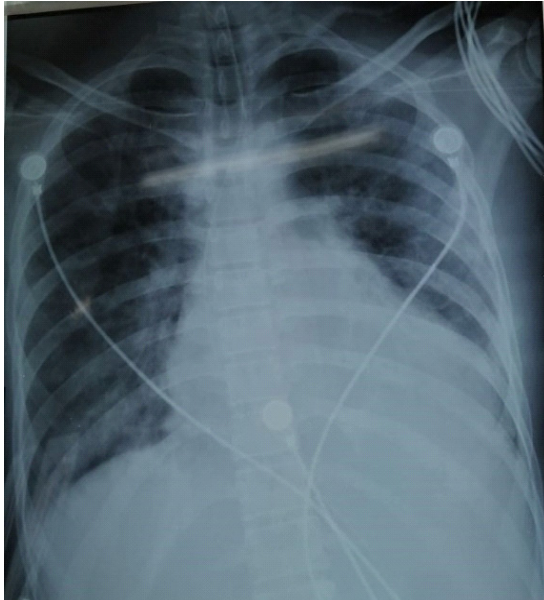


Figure 2: Radiological improvement with significant resolution of consolidation in both lungs compared to figure 1.

On day six of admission, his condition deteriorated again requiring higher ventilator settings. There was dense consolidation involving most of the left lung with consolidation in mid and upper zones of the right lung in his chest X-ray (Figure 3) with rising CRP and procalcitonin of 1.25 ng/ml. He became haemodynamically unstable requiring inotropic support. His antibiotic was escalated to meropenem, teicoplanin and colistin. Despite these, he continued to desaturate and died the following day.

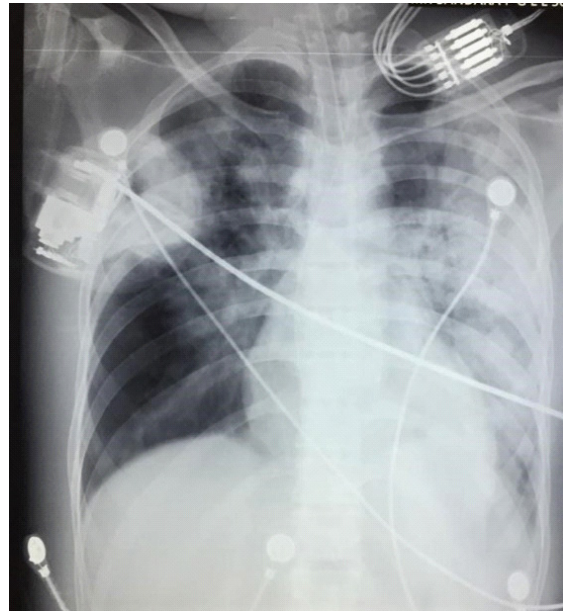


Figure 3: Dense consolidation involving most of the left lung with consolidation in mid and upper zones of right lung suggesting secondary infection.

References

1. Tleyjeh IM, Kashour Z, Riaz ML, Hassett VC Veiga, Kashour T. Efficacy and safety of tocilizumab in COVID-19 patients: A living systematic review and meta-analysis-first update. *Clin Microbiol. Infect.* 2021.
2. Moore JL, Stroever SJ, Rondain PE, Scatena Rn. Incidence of Secondary Bacterial Infections Following Utilization of Tocilizumab for the Treatment of COVID-19 – A Matched Retrospective Cohort Study. *J Glob Infect Dis.* 2021; 13: 67.