

# **PENGARUH PEMBERIAN TOCILIZUMAB TERHADAP KADAR ENZIM TRANSAMINASE PASIEN COVID-19 DI RSUP PERSAHABATAN TAHUN 2020-2021**

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## **Abstrak**

COVID-19 adalah penyakit yang disebabkan oleh infeksi virus SARS-CoV-2 yang dapat menyerang berbagai organ dalam tubuh manusia. Interleukin-6 (IL-6) merupakan sitokin yang memainkan peran penting dalam respons inflamasi dan imun terhadap infeksi. Tocilizumab adalah inhibitor monoklonal dari sitokin proinflamasi interleukin-6 yang digunakan untuk mengobati sindrom pelepasan sitokin secara klinis. Namun, penggunaan tocilizumab telah dikaitkan dengan peningkatan kadar enzim transaminase hepar dalam serum, seperti *Serum Glutamate Piruvat Transferase* (SGPT), serta *Serum Glutamate Oxaloacetate Transferase* (SGOT). Kerusakan pada hati menyebabkan pelepasan enzim-enzim ini ke dalam aliran darah, yang mengakibatkan peningkatan kadar mereka dalam darah dan menandakan adanya gangguan fungsi hati. Penelitian ini bertujuan untuk mengevaluasi dampak pemberian tocilizumab terhadap kadar enzim transaminase pada pasien COVID-19. Metode yang digunakan adalah penelitian observasional analitik dengan desain penelitian *cross-sectional*, dengan pengumpulan data yang dilakukan secara retrospektif. Penelitian ini melibatkan 14 rekam medis pasien COVID-19 yang memenuhi kriteria penelitian di RSUP Persahabatan pada tahun 2020-2021. Hasil analisis menunjukkan adanya peningkatan rata-rata kadar SGOT dan SGPT pada pasien COVID-19 yang mendapat tocilizumab, namun uji Wilcoxon tidak menemukan pengaruh signifikan dari tocilizumab terhadap kadar enzim transaminase pada pasien tersebut di RSUP Persahabatan.

**Kata kunci :** COVID-19, Tocilizumab, Transaminase, SGOT, SGPT

# ***THE EFFECT OF TOCILIZUMAB ADMINISTRATION ON TRANSAMINASE ENZY LEVELS IN COVID-19 PATIENTS AT PERSAHABATAN HOSPITAL IN 2020-2021***

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## **Abstract**

*COVID-19 is a disease caused by infection with the SARS CoV-2 virus which can attack various organs in the human body. Interleukin-6 (IL-6) is a cytokine that plays an important role in the inflammatory and immune response to infection. Tocilizumab is a monoclonal inhibitor of the proinflammatory cytokine interleukin-6 used to treat cytokine release syndrome clinically. However, the use of tocilizumab has been associated with increased serum levels of hepatic transaminase enzymes, such as Serum Glutamate Pyruvate Transferase (SGPT), as well as Serum Glutamate Oxaloacetate Transferase (SGOT). Damage to the liver causes the release of these enzymes into the bloodstream, resulting in an increase in their levels in the blood and indicating impaired liver function. This study aims to evaluate the impact of tocilizumab administration on transaminase enzyme levels in COVID-19 patients. The method used was analytical observational research with a cross-sectional research design, with data collection carried out retrospectively. This research involved 14 medical records of COVID-19 patients who met the research criteria at Persahabatan Hospital in 2020-2021. The results of the analysis showed an increase in the average SGOT and SGPT levels in COVID-19 patients who received tocilizumab, however the Wilcoxon test did not find a significant effect of tocilizumab on transaminase enzyme levels in these patients at Persahabatan Hospital.*

**Kata kunci :** *COVID-19, Tocilizumab, Transaminase, SGOT, SGPT*