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**Perbandingan Kadar Procalcitonin (PCT) Pada Pasien Tuberkulosis Paru
Dalam Pengobatan 6 Bulan Dan Tuberkulosis Paru Multi Drug Resistant
(MDR) Pengobatan Lini Pertama**

XVII + 33 halaman, 4 gambar, 5 tabel, dan 15 Lampiran

ABSTRAK

Tuberkulosis (TB) merupakan penyakit menular kronik yang disebabkan oleh bakteri *Mycobacterium tuberculosis*. Bakteri ini dikenal dengan Basil Tahan Asam (BTA) dikarenakan berbentuk basil berwarna merah dengan pengecatan *Ziehl-Neelsen*. Dinding bakteri ini sangat kompleks terdiri dari 60% lapisan lemak, dimana presetase tersebut cukup tinggi dan menyebabkan bakteri tersebut tahan terhadap zat asam. *Procalcitonin* (PCT) adalah biomarker yang membantu diagnosis saat terjadi infeksi bakteri dan sebagai pendeteksi sepsis. Penelitian ini bertujuan mengetahui perbandingan kadar *procalcitonin* pada pasien tuberkulosis paru dalam pengobatan 6 bulan dengan pasien tuberkulosis paru *multi drug resistant* pengobatan lini pertama. Jenis penelitian ini merupakan penelitian kuantitatif dengan desain penelitian *cross sectional*. Besar sampel yang akan diambil adalah 15 pasien tuberkulosis dalam pengobatan 6 bulan dan 15 pasien tuberkulosis *multidrug resistant* pengobatan lini pertama. Hasil dari penelitian ini didapatkan rata-rata kadar PCT pada pasien TB paru dalam pengobatan 6 bulan adalah 0,499733 ng/ml sedangkan pada pasien TB paru MDR pengobatan lini pertama adalah 0,4426 ng/ml. Hasil dari uji *independent t-test* menunjukkan tidak adanya perbandingan signifikan antara kadar PCT (*procalcitonin*) pada pasien tuberkulosis paru dalam pengobatan 6 bulan dengan pasien tuberkulosis paru *multidrug resistant* (MDR) pengobatan lini pertama ($p = 0,494$).

Kata kunci: Tuberkulosis paru, sepsis, *procalcitonin*, bakteremia, *multidrug resistant*

Daftar bacaan: 38 (2011-2025)

TANJUNGKARANG HEALTH POLYTECHNIC
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Comparison of Procalcitonin (PCT) Levels in Pulmonary Tuberculosis Patients Undergoing 6-Month Treatment and Multi Drug Resistant (MDR) Pulmonary Tuberculosis Patients Receiving First-Line Therapy

XVII + 33 pages, 4 pictures, 5 tabel, and 15 attachment

ABSTRACT

*Tuberculosis (TB) is a chronic infectious disease caused by the bacterium *Mycobacterium tuberculosis*. This bacterium is known as Acid-Fast Bacilli (AFB) because it is rod-shaped and appears red with Ziehl-Neelsen staining. The cell wall of this bacterium is very complex, consisting of 60% fat layer, in which the percentage is quite high and causes the bacterium to be resistant to acidic substances. Procalcitonin (PCT) is a biomarker that helps diagnosis during bacterial infection and as a detector of sepsis. This study aims to determine the comparison of procalcitonin levels in pulmonary tuberculosis patients undergoing 6 months of treatment with multidrug-resistant pulmonary tuberculosis patients receiving first-line treatment. This type of research is quantitative research with a cross-sectional study design. The sample size to be taken is 15 tuberculosis patients undergoing 6 months of treatment and 15 multidrug-resistant tuberculosis patients receiving first-line treatment. The results of this study showed that the average PCT level in pulmonary TB patients undergoing 6 months of treatment was 0.499733 ng/ml, while in pulmonary MDR-TB patients receiving first-line treatment it was 0.4426 ng/ml. The results of the independent t-test showed that there was no significant difference between the PCT (procalcitonin) levels in pulmonary tuberculosis patients undergoing 6 months of treatment and pulmonary multidrug-resistant (MDR) tuberculosis patients receiving first-line treatment ($p = 0.494$).*

Keywords: Pulmonary tuberculosis, sepsis, procalcitonin, bacteremia, multidrug resistant

References: 38 (2011-2025)