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Hubungan Kadar Glukosa Darah Puasa Terhadap Kadar Interleukin-6 (IL-6) Pada Pasien Penderita Diabetes Melitus Tipe 2 Di Rumah Sakit Pertamina Bintang Amin

xvi + 34 halaman, 7 tabel, 4 gambar, dan 14 lampiran

ABSTRAK

Diabetes melitus tipe 2 adalah gangguan metabolisme yang ditandai oleh peningkatan kadar glukosa darah akibat resistensi insulin dan kegagalan fungsi sel beta pankreas. Gangguan ini sering terkait dengan obesitas dan konsentrasi glukosa darah tinggi yang dapat memicu peradangan melalui respon inflamasi pada organ penginderaan insulin. Penelitian ini bertujuan untuk menganalisis korelasi antara kadar glukosa darah puasa dan kadar *Interleukin-6* (IL-6) pada pasien diabetes melitus tipe 2 di Rumah Sakit Pertamina Bintang Amin. Jenis penelitian ini adalah analitik dengan rancangan penelitian *cross sectional*. Penelitian menggunakan uji korelasi *Kendall's Tau-b* pada 27 pasien selama Januari hingga Mei 2024. Mayoritas pasien adalah perempuan (66,7%) dan berusia 55-64 tahun (48,1%). Sebagian besar pasien memiliki kadar glukosa darah puasa ≥ 126 mg/dl (74,1%) dan kadar IL-6 ≥ 7 ng/L (100%), dengan rata-rata kadar IL-6 sebesar 111,1 ng/L. Hasil uji *Kendall's Tau-b* menunjukkan tidak ada hubungan signifikan antara kadar glukosa darah puasa dan kadar IL-6, dengan koefisien korelasi -0,071 dan tingkat signifikansi 0,602. Kesimpulannya, kadar glukosa darah puasa tidak berhubungan signifikan dengan kadar IL-6 pada pasien DMT2 di Rumah Sakit Pertamina Bintang Amin.

Kata kunci : Diabetes melitus tipe 2, Glukosa Darah Puasa (GDP), *Interleukin-6* (IL-6)

Daftar bacaan: 43 (2001-2023)

**TANJUNGPURBA MINISTRY OF HEALTH POLYTECHNIC
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The Relationship between Fasting Blood Glucose Levels and Interleukin-6 (IL-6) Levels in Patients Suffering from Type 2 Diabetes Mellitus at Pertamina Bintang Amin Hospital

xvi + 34 pages, 7 tables, 4 images, dan 14 attachments

ABSTRACT

Type 2 diabetes mellitus is a metabolic disorder characterized by increased blood glucose levels due to insulin resistance and pancreatic beta cell failure. This disorder is often associated with obesity and high blood glucose concentrations that can trigger inflammation through an inflammatory response to insulin-sensing organs. This study analyzes the correlation between fasting blood glucose levels and Interleukin-6 (IL-6) levels in diabetic patients type 2 at Pertamina Bintang Amin Hospital. This type of research is analytical with a cross sectional research design. The study used a Kendall's Tau-b correlation test on 27 patients from January to Mei, 2024. Most patients were women (66,7%) and aged 55-64 years (48,1%). Most patients had fasting blood glucose levels of ≥ 126 mg/dl (74,1%) and IL-6 levels ≥ 7 ng/L (100%), with an average IL-6 level of 111,1 ng/L. The results of Kendall's Tau-b test showed no significant relationship between fasting blood glucose levels and IL-6 levels, with a correlation coefficient of -0,071 and a significance level of 0,602. In conclusion, fasting blood glucose levels are not significantly related to IL-6 levels in DMT2 patients at Pertamina Bintang Amin Hospital.

Keywords : *Type 2 diabetes mellitus, Fasting Blood Glucose (FBG), Interleukin-6 (IL-6)*

Reading List : *43 (2001-2023)*