ABSTRAK

ANALISIS HUBUNGAN KADAR GULA DARAH PUASA DENGAN KADAR ASAM URAT PADA PASIEN DIABETES MELITUS DI UTP LABORATORIUM KESEHATAN KOTA PONTIANAK

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Latar Belakang: Diabetes melitus merupakan penyakit metabolik kronis yang ditandai hiperglikemia akibat gangguan sekresi atau resistensi insulin. Hiperglikemia kronis dapat menyebabkan nefropati diabetik melalui stres oksidatif dan inflamasi. Penurunan fungsi ginjal serta kompetisi ekskresi glukosa dan asam urat di tubulus ginjal dapat menghambat pengeluaran asam urat sehingga meningkatkan risiko hiperurisemia. **Tujuan:** Mengetahui hubungan kadar gula darah puasa dengan kadar asam urat pada pasien Diabetes Melitus Tipe 2 peserta Program Pengelolaan Penyakit Kronis (Prolanis) di UPT Laboratorium Kesehatan Kota Pontianak. **Metode:** Penelitian analitik observasional dengan pendekatan *cross-sectional* ini menggunakan sampel serum dari 41 pasien Diabetes Melitus Tipe 2 peserta Prolanis yang dipilih secara *accidental sampling* selama Desember 2025–Maret 2026. Analisis dilakukan menggunakan uji korelasi Spearman. **Hasil:** Uji Spearman menunjukkan tidak terdapat hubungan yang signifikan antara kadar gula darah puasa dan kadar asam urat (p = 0,861; p > 0,05), dengan koefisien korelasi sangat lemah (r = 0,028). **Kesimpulan:** Tidak terdapat hubungan yang signifikan antara kadar gula darah puasa dengan kadar asam urat pada pasien Diabetes Melitus Tipe 2 peserta Prolanis di UPT Laboratorium Kesehatan Kota Pontianak. Nilai koefisien korelasi (r = 0,028) menunjukkan hubungan yang sangat lemah antara kedua variabel.

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Kata kunci: asam urat, diabetes melitus, gula darah puasa.

ABSTRACT

Analysis of the Correlation Between Fasting Blood Glucose and Serum Uric Acid Levels in Patients with Diabetes Mellitus at the Pontianak City Health Laboratory Technical Implementation Unit

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Background: Diabetes mellitus is a chronic metabolic disease characterized by hyperglycemia resulting from impaired insulin secretion or insulin resistance. Chronic hyperglycemia may lead to diabetic nephropathy through oxidative stress and inflammatory mechanisms. Declining renal function, together with competition between glucose and uric acid excretion in the renal tubules, may reduce uric acid elimination and increase the risk of hyperuricemia. **Objective:** To determine the correlation between fasting blood glucose and serum uric acid levels among patients with Type 2 Diabetes Mellitus enrolled in the Chronic Disease Management Program (Prolanis) at the Pontianak City Health Laboratory Technical Implementation Unit. **Methods:** This analytical observational study employed a cross-sectional design. Serum samples were collected from 41 patients with Type 2 Diabetes Mellitus participating in the Prolanis program using an accidental sampling technique between December 2025 and March 2026. Data were analyzed using Spearman's rank correlation test. **Results:** Spearman's rank correlation analysis showed no statistically significant correlation between fasting blood glucose and serum uric acid levels ($p = 0.861$; $p > 0.05$), with a very weak correlation coefficient ($r = 0.028$).**Conclusion:** There was no statistically significant correlation between fasting blood glucose and serum uric acid levels among patients with Type 2 Diabetes Mellitus participating in the Prolanis program at the Pontianak City Health Laboratory Technical Implementation Unit. The correlation coefficient ($r = 0.028$) indicated a very weak relationship between the two variables.

Keywords: fasting blood glucose, diabetes mellitus, serum uric acid.

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