ABSTRAK

Latar Belakang: Prevalensi Diabetes Mellitus di Indonesia mengalami peningkatan tiap tahunnya. Pemeriksaan urinalisa digunakan sebagai uji saring untuk mengetahui potensi gangguan penyakit Diabetes Mellitus. Hasil positif glukosa pada urine dapat memperkuat dugaan penyakit Diabetes Mellitus jika gejala mulai terasa, dengan gangguan metabolisme karbohidrat yang ditandai adanya glukosa dalam urine (glukosuria) apabila kadar glukosa darah melebihi ambang batas ekskresi ginjal yaitu 180 mg/dl.
Tujuan Penelitian: Untuk mengetahui hubungan kadar glukosa darah dengan kadar glukosa urine metode Benedict.
Metode Penelitian: Jenis penelitian ini adalah analitik observasional dengan desain *Cross Sectional*. Penelitian ini menggunakan sampel urine manipulatif berupa larutan glukosa (*D-Glucose anhydrous for biochemistry*) yang dilakukan uji reduksi urine metode Benedict. Data yang telah diperoleh selanjutnya dianalisis secara deskriptif dalam bentuk tabel dan statistik dengan uji Korelasi *Kendall's Tau*.
Hasil Penelitian: Hasil penelitian menunjukkan bahwa pada kadar glukosa darah 205 – 355 mg/dl memberikan hasil kadar glukosa urine positif 1, kadar glukosa darah 308 – 505 mg/dl memberikan hasil kadar glukosa urine positif 2, kadar glukosa darah 530 – 655 mg/dl memberikan hasil kadar glukosa urine positif 3, dan kadar glukosa darah >680 mg/dl memberikan hasil kadar glukosa urine positif 4. Hasil uji Korelasi *Kendall's Tau* menunjukkan signifikansi sebesar 0,007 (<0,05) dan nilai koefisien korelasi sebesar 0,966.
Kesimpulan: Ada hubungan antara kadar glukosa darah dengan kadar glukosa urine metode Benedict. Semakin tinggi kadar glukosa darah, maka semakin meningkat kadar glukosa urine metode Benedict.

Kata Kunci: kadar glukosa darah, kadar glukosa urine, metode Benedict

ABSTRACT

Background: The prevalence of Diabetes Mellitus in Indonesia has increased every year. The urinalysis examination is used as a screening test to determine the potential for diabetes mellitus. A positive result of glucose in the urine can strengthen the suspicion of Diabetes Mellitus if symptoms begin to be felt, with carbohydrate metabolism disorders marked by the presence of glucose in the urine (glucosuria) if the blood glucose level exceeds the renal excretion threshold of 180 mg/dl.
Research Objective: To determine the relationship between blood glucose levels and urine glucose levels using Benedict's method.
Research Methods: This type of research is analytic observational with a cross sectional design. This study used a manipulative urine sample in the form of a glucose solution (D-Glucose anhydrous for biochemistry) which was tested for urine reduction using the Benedict's method. The data that has been obtained is then analyzed descriptively in the form of tables and statistics with the Kendall's Tau Correlation test.
Results: The results showed that blood glucose levels of 205 – 355 mg/dl gave a positive urine glucose level of 1, blood glucose levels of 308 – 505 mg/dl gave a positive urine glucose level of 2, blood glucose levels of 530 – 655 mg/dl gave positive results. positive urine glucose levels 3, and blood glucose levels >680 mg/dl gave positive urine glucose levels 4. The results of the Kendall's Tau correlation test showed a significance of 0.007 (<0.05) and a correlation coefficient of 0.966.
Conclusion: There is a relationship between blood glucose levels with urine glucose levels Benedict's method. The higher the blood glucose level, the higher the urine glucose level using Benedict's method.

Keywords: blood glucose level, urine glucose level, Benedict's method