

## ABSTRAK

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HUBUNGAN KADAR HbA1c DENGAN KADAR UREUM DAN KREATININ  
PADA PASIEN PROLANIS DIABETES MELITUS TIDAK TERKONTROL  
DISERTAI HIPERTENSI

1x + 68 Halaman + 20 Tabel + 9 Lampiran

Diabetes melitus merupakan gangguan metabolisme kronis yang ditandai oleh tingginya kadar glukosa dalam darah dan berpotensi menimbulkan berbagai komplikasi, termasuk kerusakan fungsi ginjal. Kadar HbA1c yang tidak terkontrol ( $>7\%$ ) serta adanya hipertensi sebagai faktor risiko dapat memperburuk fungsi ginjal melalui peningkatan kadar ureum maupun kreatinin akibat kerusakan glomerulus. Tujuan penelitian ini untuk mengetahui ada tidaknya hubungan kadar HbA1c dengan kadar ureum kreatinin pasien prolanis diabetes tidak terkontrol disertai hipertensi.

Penelitian menggunakan rancangan observasional analitik dengan pendekatan *cross-sectional* serta melibatkan sebanyak 30 pasien prolanis di Laboratorium Farmalab Bangkalan Madura pada Maret 2025. Pemeriksaan HbA1c menggunakan alat Wondfo. Pemeriksaan ureum dan kreatinin menggunakan alat Biobase. Metode pemilihan sampel dilakukan secara *purposive* berdasarkan kriteria inklusi yakni kadar HbA1c  $>7\%$  disertai hipertensi..

Sebagian besar kadar ureum dan kreatinin merupakan kategori normal. Hasil uji korelasi *Spearman* menunjukkan nilai signifikansi HbA1c dengan ureum sebesar 0,708, serta HbA1c dan kreatinin sebesar 0,783. Keduanya bernilai  $>0,05$ . Temuan ini mengindikasikan bahwa tidak terdapat hubungan yang signifikan antara kadar HbA1c dengan kadar ureum maupun kreatinin pada pasien prolanis diabetes yang tidak terkontrol disertai hipertensi.

Kata kunci: Diabetes, HbA1c, Ureum, Kreatinin, Hipertensi

Daftar bacaan: 32 buku (2017-2024)

## ABSTRACT

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THE RELATIONSHIP BETWEEN HbA1c LEVELS WITH UREA AND CREATININE LEVELS IN UNCONTROLLED DIABETES MELITUS PROLANIS PATIENTS WITH HYPERTENSION

1x + 68 Pages + 20 Tables + 9 Appendies

Diabetes mellitus is a chronic metabolic disorder characterized by elevated blood glucose levels and has the potential to cause various complications, including impaired kidney function. Uncontrolled HbA1c levels (>7%) and the presence of hypertension as a risk factor may worsen renal function through increased levels of urea and creatinine due to glomerular damage. This study aims to determine whether there is a relationship between HbA1c levels and urea and creatinine levels in Prolanis patients with uncontrolled diabetes accompanied by hypertension.

This research employed an analytical observational design with a cross-sectional approach and involved 30 Prolanis patients at the Farmalab Laboratory, Bangkalan, Madura, in March 2025. HbA1c levels were measured using the Wondfo device, while urea and creatinine levels were examined using the Biobase instrument. Samples were selected purposively based on inclusion criteria, namely HbA1c levels >7% with concurrent hypertension.

Most urea and creatinine levels were within the normal range. Spearman correlation test results showed a significance value of 0.708 for HbA1c and urea, and 0.783 for HbA1c and creatinine. Both values exceeding 0.05. These findings indicate that there is no significant relationship between HbA1c levels and urea or creatinine levels in Prolanis patients with uncontrolled diabetes accompanied by hypertension.

Keywords: Diabetes, HbA1c, Urea, Creatinine, Hypertension

References: 32 books (2017-2024)