

Kadar Albumin Urin pada Retinopati Diabetik = Albumin Urine Level in Diabetic Retinopathy

Wilya Kuswandi, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20391203&lokasi=lokal>

Abstrak

[Diabetes melitus (DM) merupakan ancaman serius bagi pembangunan kesehatan dan pertumbuhan ekonomi nasional serta merupakan penyebab penting timbulnya kecacatan dan kematian. Dari semua kasus DM, DM tipe 2 mencakup lebih dari 90% dari semua pasien diabetes. Nefropati diabetik dan retinopati diabetik merupakan komplikasi mikroangiopati pada DM tipe 2 yang paling ditakuti dan keduanya sering ditemukan bersamaan. Perkembangan lanjut dari keduanya menyebabkan gagal ginjal tahap akhir dan kebutaan. Tujuan dari penelitian ini adalah untuk mengetahui kadar albumin urin dalam membedakan retinopati diabetik dan non retinopati diabetik.

Penelitian potong lintang ini terdiri dari 100 subyek yang terbagi atas kelompok retinopati diabetik 50 orang dan non retinopati diabetik 50 orang dari populasi DM tipe 2. Penderita didiagnosis DM tipe 2 oleh dokter Divisi Metabolik Endokrin Departemen Ilmu Penyakit Dalam Rumah Sakit Ciptomangunkusumo. Untuk retinopati diabetik dan non retinopati diabetik, diagnosis dilakukan dengan foto fundus pada pupil yang dilatasi oleh dokter Divisi Retina Departemen Ilmu Penyakit Mata Rumah Sakit Ciptomangunkusumo. Pada kedua kelompok dicatat data karakteristik subyek dan dilakukan pemeriksaan kadar albumin urin. Kadar albumin urin pada kelompok retinopati diabetik lebih tinggi secara bermakna dibandingkan pada kelompok non retinopati diabetik ($303,41 \pm 11,14$ mg/g kreatinin vs $28,14 \pm 4,90$ mg/g kreatinin, $p < 0,001$). Nilai cut-off kadar albumin urin untuk membedakan retinopati diabetik dan non retinopati diabetik adalah 118 mg/g kreatinin dengan sensitivitas 72%, spesifisitas 78%, nilai duga positif 77%, nilai duga negatif 74%, rasio kemungkinan positif 3,27 dan rasio kemungkinan negatif 0,36.

Kami menyimpulkan pemeriksaan kadar albumin urin dapat dipakai untuk membedakan retinopati diabetik dan non retinopati diabetik.

.....Diabetes mellitus (DM) is a worldwide public health concern as they impose enormous medical, economic and social costs on both patient and the health care system. Together they contribute to serious morbidity and mortality. Type 2 DM affects more than 90% of all DM cases. Diabetic nephropathy and diabetic retinopathy are the two most dreaded complications of diabetes and frequently found together. Progression of both is the leading cause of end-stage renal disease and blindness. The aim of this study is to investigate albumin urine level in distinguishing diabetic retinopathy and non-diabetic retinopathy.

This cross-sectional study consisted of 100 respondents, in which 50 of them were categorized as diabetic retinopathy and 50 as non-diabetic retinopathy. The patients were diagnosed with type 2 DM by a doctor from Endocrinology Metabolic Division of Internal Medicine Department at Ciptomangunkusumo Hospital. Meanwhile diabetic retinopathy and non-diabetic retinopathy were diagnosed by ophthalmologist from Retina Division of Eye Medicine Department at Ciptomangunkusumo Hospital. Baseline characteristics of both groups were recorded and the albumin urine level was measured.

The albumin urine level in diabetic retinopathy group was significantly higher than that in the non-diabetic retinopathy group ($303,41 \pm 11,14$ mg/g kreatinin vs $28,14 \pm 4,90$ mg/g kreatinin, $p < 0,001$). The albumin

urine level cut-off value used to distinguish diabetic retinopathy and non-diabetic retinopathy was 118 mg/g creatinine with sensitivity of 72%, specificity of 78%, positive predictive value of 77%, , negative predictive value of 74%, positive likelihood ratio of 3,27, and negative likelihood ratio of 0,36.

We conclude that albumin urine level test can be utilized to distinguish diabetic retinopathy from non-diabetic retinopathy.;Diabetes mellitus (DM) is a worldwide public health concern as they impose enormous medical, economic and social costs on both patient and the health care system. Together they contribute to serious morbidity and mortality. Type 2 DM affects more than 90% of all DM cases. Diabetic nephropathy and diabetic retinopathy are the two most dreaded complications of diabetes and frequently found together. Progression of both is the leading cause of end-stage renal disease and blindness. The aim of this study is to investigate albumin urine level in distinguishing diabetic retinopathy and non-diabetic retinopathy.

This cross-sectional study consisted of 100 respondents, in which 50 of them were categorized as diabetic retinopathy and 50 as non-diabetic retinopathy. The patients were diagnosed with type 2 DM by a doctor from Endocrinology Metabolic Division of Internal Medicine Department at Ciptomangunkusumo Hospital. Meanwhile diabetic retinopathy and non-diabetic retinopathy were diagnosed by ophthalmologist from Retina Division of Eye Medicine Department at Ciptomangunkusumo Hospital. Baseline characteristics of both groups were recorded and the albumin urine level was measured.

The albumin urine level in diabetic retinopathy group was significantly higher than that in the non-diabetic retinopathy group ($303,41 \pm 11,14$ mg/g kreatinin vs $28,14 \pm 4,90$ mg/g kreatinin, $p < 0,001$). The albumin urine level cut-off value used to distinguish diabetic retinopathy and non-diabetic retinopathy was 118 mg/g creatinine with sensitivity of 72%, specificity of 78%, positive predictive value of 77%, , negative predictive value of 74%, positive likelihood ratio of 3,27, and negative likelihood ratio of 0,36.

We conclude that albumin urine level test can be utilized to distinguish diabetic retinopathy from non-diabetic retinopathy., Diabetes mellitus (DM) is a worldwide public health concern as they impose enormous medical, economic and social costs on both patient and the health care system. Together they contribute to serious morbidity and mortality. Type 2 DM affects more than 90% of all DM cases. Diabetic nephropathy and diabetic retinopathy are the two most dreaded complications of diabetes and frequently found together. Progression of both is the leading cause of end-stage renal disease and blindness. The aim of this study is to investigate albumin urine level in distinguishing diabetic retinopathy and non-diabetic retinopathy.

This cross-sectional study consisted of 100 respondents, in which 50 of them were categorized as diabetic retinopathy and 50 as non-diabetic retinopathy. The patients were diagnosed with type 2 DM by a doctor from Endocrinology Metabolic Division of Internal Medicine Department at Ciptomangunkusumo Hospital. Meanwhile diabetic retinopathy and non-diabetic retinopathy were diagnosed by ophthalmologist from Retina Division of Eye Medicine Department at Ciptomangunkusumo Hospital. Baseline characteristics of both groups were recorded and the albumin urine level was measured.

The albumin urine level in diabetic retinopathy group was significantly higher than that in the non-diabetic retinopathy group ($303,41 \pm 11,14$ mg/g kreatinin vs $28,14 \pm 4,90$ mg/g kreatinin, $p < 0,001$). The albumin urine level cut-off value used to distinguish diabetic retinopathy and non-diabetic retinopathy was 118 mg/g creatinine with sensitivity of 72%, specificity of 78%, positive predictive value of 77%, , negative predictive value of 74%, positive likelihood ratio of 3,27, and negative likelihood ratio of 0,36.

We conclude that albumin urine level test can be utilized to distinguish diabetic retinopathy from non-diabetic retinopathy.]