

ABSTRACT**RELATIONSHIP BETWEEN LEVELS OF LDL CHOLESTEROL,
LEVELS OF HbA1C, AND HYPERTENSION WITH THE DEGREE OF
DIABETIC RETINOPATHY IN OPHTHALMOLOGIST POLYCLINIC
RSUD DR H ADUL MOELOEK LAMPUNG PROVINCE**

By

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Background: *Diabetes mellitus (DM) is a metabolic disease characterized by increased blood glucose levels in the body. DM complications can cause Diabetic Retinopathy. Carry out good metabolic control, can prevent the increased incidence and progression of diabetic retinopathy.*

Objective: *This study aims to determine the relationship between LDL cholesterol levels, HbA1c levels and hypertension with the degree of diabetic retinopathy at the Ophthalmologist Polyclinic RSUD Dr H Abdul Moeloek.*

Method: *The method used in this study was an observational method with a cross-sectional design using consecutive sampling as the sampling method. Data analysis used the fisher's exact test, followed by logistic regression analysis.*

Result: *There were 26 research subjects in this study. The analysis showed the average of patients with NPDR had HbA1c levels of 6,1%, LDL cholesterol levels of 138mg/dL and blood pressure of 144/87mmHg while the average of patients with PDR had HbA1c levels of 8,5%, LDL cholesterol levels 167mg/dL and blood pressure of 143/88mmHg. The results of study found that there was a relationship between HbA1C levels and the degree of diabetic retinopathy with p value 0.005 and there was a relationship between hypertension and the degree of diabetic retinopathy with a p value of 0.014. There was no relationship between LDL cholesterol levels and the degree of diabetic retinopathy with p value of 0.562. The results of the multivariate analysis showed that HbA1C levels were the strongest variable that had a relationship with the degree of diabetic retinopathy and had OR 20.424.*

Conclusion: *There was a significant relationship between HbA1C levels and hypertension with the degree of diabetic retinopathy. The most related variable was the HbA1C level.*

Keywords: diabetic retinopathy, HbA1C, LDL cholesterol, hypertension

ABSTRAK

HUBUNGAN ANTARA KADAR KOLESTEROL LDL, KADAR HbA1C DAN HIPERTENSI DENGAN DERAJAT RETINOPATI DIABETIK DI POLI KLINIK MATA RSUD DR H ABDUL MOELOEK PROVINSI LAMPUNG

Oleh

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Latar belakang: Diabetes mellitus (DM) adalah penyakit metabolisme yang ditandai dengan peningkatan kadar gula darah dalam tubuh. Komplikasi DM dapat menyebabkan Retinopati Diabetik. Dengan kontrol metabolik yang baik maka peningkatan insiden dan progresivitas retinopati diabetik dapat dicegah.

Tujuan: Penelitian ini bertujuan untuk mengetahui hubungan antara kadar kolesterol LDL, kadar HbA1c dan hipertensi dengan derajat retinopati diabetik di Poli Mata Klinik RSUD Abdul Moeloek.

Metode: Metode yang digunakan dalam penelitian ini adalah metode observasional dengan desain potong lintang yang menggunakan *consecutive sampling* sebagai metode pengambilan sampel. Analisis data menggunakan uji *fisher exact*, dilanjutkan menggunakan analisis regresi logistik.

Hasil: Dalam penelitian ini terdapat subjek penelitian sebanyak 26 orang. Hasil penelitian menunjukkan rerata pasien dengan NPDR memiliki kadar HbA1c 6,1%, kadar kolesterol LDL 138mg/dL dan tekanan darah 144/87mmHg. Sedangkan pasien PDR rerata memiliki kadar HbA1c 8,5%, kadar kolesterol LDL 167mg/dL dan tekanan darah 143/88mmHg. Hasil penelitian didapatkan bahwa terdapat hubungan antara kadar HbA1C dengan derajat retinopati diabetik dengan p value 0,005 dan terdapat hubungan antara hipertensi dengan derajat retinopati diabetik dengan p value 0,014. Tidak terdapat hubungan antara kadar kolesterol LDL dengan derajat retinopati diabetik dengan p value 0,562. Hasil analisis multivariat menunjukkan kadar HbA1C merupakan variabel terkuat yang memiliki hubungan dengan derajat retinopati diabetik dan memiliki OR sebesar 20,424.

Kesimpulan: Terdapat hubungan bermakna antara kadar HbA1C dan hipertensi dengan derajat retinopati diabetik. Variabel yang paling berhubungan adalah kadar HbA1C

Kata kunci: retinopati diabetik, HbA1C, kolesterol LDL, hipertensi