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Hubungan Kadar Gula Darah Puasa Dengan Kadar Profil Lipid Pada Pasien Diabetes Mellitus Tipe 2 Disertai *Congestive Heart Failure* Di Poliklinik Rumah Sakit Umum Az- Zahra Kalirejo

xiv+ , 7 tabel, 4 gambar dan 19 Lampiran

ABSTRAK

Diabetes melitus (DM) merupakan sekelompok penyakit metabolik ditandai dengan adanya hiperglikemia, yang dapat mengakibatkan inflamasi, stress oksidatif, hingga gangguan yang menyebabkan terbentuknya lesi aterosklerosis kemudian menyebabkan adanya gangguan pada suplai darah ke tubuh sehingga terjadi masalah gagal jantung (*Congestive Heart Failure*) yaitu suatu kondisi di mana jantung tidak dapat memompa darah dengan efektif untuk memenuhi kebutuhan tubuh, menyebabkan penumpukan cairan. Penelitian ini bertujuan untuk melihat apakah terdapat hubungan antara kadar gula darah puasa dengan profil lipid pada pasien diabetes melitus tipe 2 disertai *Congestive Heart Failure* di Poliklinik Rumah Sakit Umum Az-Zahra Kalirejo. Jenis penelitian analitik dengan desain *cross- sectional*. Populasi penelitian adalah 50 orang. Sampel penelitian sebanyak 41 orang dengan kriteria inklusi. Analisis data uji normalitas menggunakan uji *shapiro wilk* didapat nilai < 0.05 yang berarti hasil data terdistribusi normal dan hasil uji *Pearson Correlation* menunjukkan bahwa tidak ada hubungan antara kadar gula darah puasa dengan Kolesterol Total ($p\text{ value} = 0,110$) dan kolesterol LDL (Low Density Lipoprotein) ($p\text{ value} = 0,353$). Terdapat hubungan antara kadar gula darah puasa dengan trigliserida ($p\text{ value} = 0,048$) dan ($r=0,311$) yang artinya memiliki hubungan lemah dan kolesterol HDL (High Density Lipoprotein) ($p\text{ value} = 0,000$) dan ($r=0,520$) yang berarti memiliki hubungan sedang.

Kata Kunci : Diabetes melitus tipe 2, *Congestive Heart Failure*, Profil lipid, Kolesterol total, Trigliserida, HDL, LDL.

Daftar Bacaan : 34 (2015 -2025)

**TANJUNGKARANG HEALTH POLYTECHNIC
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Relationship Between Fasting Blood Sugar Levels and Lipid Profile Levels in Type 2 Diabetes Mellitus Patients Accompanied by Congestive Heart Failure at the Az-Zahra Kalirejo General Hospital Polyclinic

xiv+ , 7 tables, 4 figures and 19 Attachments

ABSTRACT

Diabetes mellitus (DM) is a group of metabolic diseases characterized by hyperglycemia, which can lead to inflammation, oxidative stress, and disorders that cause the formation of atherosclerotic lesions, which then cause disruption of the blood supply to the body, resulting in heart failure (Congestive Heart Failure), a condition in which the heart cannot pump blood effectively to meet the body's needs, causing fluid buildup. This study aims to see whether there is a relationship between fasting blood sugar levels and lipid profiles in patients with type 2 diabetes mellitus accompanied by Congestive Heart Failure at the Polyclinic of Az-Zahra Kalirejo General Hospital. This type of research is analytical with a cross-sectional design. The study population is 50 people. The study sample is 41 people with inclusion criteria. Analysis of normality test data using the Shapiro Wilk test obtained a value of <0.05 which means the data results are normally distributed and the results of the Pearson Correlation test show that there is no relationship between fasting blood sugar levels with Total Cholesterol (p value = 0.110) and LDL (Low Density Lipoprotein) cholesterol (p value = 0.353). There is a relationship between fasting blood sugar levels with triglycerides (p value = 0.048) and ($r = 0.311$) which means it has a weak relationship and HDL (High Density Lipoprotein) cholesterol (p value = 0.000) and ($r = 0.520$) which means it has a moderate relationship.

Keywords : *Diabetes melitus tipe 2, Congestive Heart Failure, Profil lipid, Kolesterol total, Trigliserida, HDL, LDL.*

Reading list : *34 (2015 -2025)*