

# HUBUNGAN ANTARA KADAR GULA DARAH PUASA DENGAN FREKUENSI DENYUT JANTUNG ISTIRAHAT PADA PASIEN DIABETES MELITUS DI RSUD RADEN MATTATHER JAMBI TAHUN 2018

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## **Abstrak**

Orang dengan denyut jantung istirahat atau *resting heart rate* (RHR) tinggi lebih berisiko mengalami gangguan kardiovaskular. Beberapa penelitian menemukan peran RHR dalam memprediksi kejadian dan mortalitas penyakit kardiovaskular. Sementara itu, hiperglikemia pada diabetes melitus (DM) menyebabkan stres oksidatif serta reaksi inflamasi yang dapat menimbulkan simpatoeksitasi dan meningkatkan RHR. Penelitian yang dilakukan di RSUD Raden Mattaher Jambi bertujuan untuk mengetahui hubungan antara kadar gula darah puasa (GDP) dengan frekuensi RHR pada pasien DM tipe 2. Penelitian ini merupakan penelitian analitik dengan desain *cross sectional* dan 29 total sampel yang diambil melalui teknik *consecutive sampling*. Penelitian dianalisis secara univariat dan bivariat menggunakan uji korelasi Pearson. Hasil menunjukkan rata-rata kadar GDP responden sebesar  $187,45 \pm SD 7,28$  mg/dl. Seluruh responden memiliki kadar GDP tinggi. Rata-rata RHR responden  $95,21 \pm SD 2,57$  denyut per menit. Ada hubungan antara kadar GDP dengan frekuensi RHR ( $p=0,009$ ).  $r=0,479$  menandakan korelasi positif dengan kekuatan sedang. Tingginya kadar GDP berhubungan dengan tingginya frekuensi RHR pada pasien DM tipe 2 di RSUD Raden Mattaher Jambi tahun 2018.

**Kata Kunci** : denyut jantung istirahat, DM tipe 2, gula darah puasa

# **THE RELATION BETWEEN FASTING BLOOD GLUCOSE LEVEL WITH RESTING HEART RATE FREQUENCY IN TYPE 2 DIABETES MELLITUS PATIENT AT RSUD RADEN MATTAHER JAMBI PERIOD 2018**

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## **Abstract**

People with high resting heart rate (RHR) had higher cardiovascular impairment risk. Several studies had also found the role of RHR in predicting the incidence and mortality of cardiovascular disease. Meanwhile, hyperglycemia in diabetes caused oxydative stress and inflammation which could induce sympatoexcitation and increase RHR. This study conducted in RSUD Raden Mattaher Jambi aimed to investigate the relation between fasting blood glucose (FBG) level with RHR frequency in type 2 diabetes mellitus patients. This study was an analytical research with cross sectional design and 29 total samples which taken by consecutive sampling technique. This study was analyzed univariately and bivariately with Pearson correlation test. The results showed the average of respondent FBG level was  $187,45 \pm SD 7,28$  mg/dl. All of respondent had high FBG level. The average of respondent RHR frequency was  $95,21 \pm SD 2,57$  beat per minute. There was a relation between FBG level with RHR frequency ( $p=0,009$ ).  $r=0,479$  indicated positive correlation with moderate strength. High FBG level was related to high RHR frequency in type 2 diabetes mellitus patients at RSUD Raden Mattaher Jambi period 2018.

**Keywords** : fasting blood glucose, RHR, type 2 DM