

ABSTRACT

Diabetes Mellitus (DM) is a metabolic disorder due to lack of insulin production, the body cannot use insulin produced effectively, or both. One way to find out the condition of blood sugar is look at the fasting blood sugar level (FBS). The purpose of this study to analyze the factors related to fasting blood sugar (FBS) in patients with type 2 diabetes mellitus (DM) at Rumah Diabetes Universitas Surabaya.

The design of this study is case control. The research sample which is taken randomly from 24 people using simple random sampling and divided into two groups, namely groups with controlled FBS and groups with uncontrolled FBS. Data collection included respondent characteristics, measurement of body weight, height, abdominal circumference, 2x24 hour food recall, semi quantitative food frequency, knowledge level questionnaire, exercise habits, and compliance with drug consumption. Data on the level of FBS were obtained glorifying medical records, while the HbA1c level data were obtained through laboratory examinations. Data were analyzed using SPSS software for windows with chi square test.

The results showed that factors significantly related to FBS levels included the accuracy of dietary carbohydrate sources ($p = 0.025$; OR = 11), accuracy of dietary sources of sucrose ($P = 0.009$; OR = 15.4), accuracy of the amount of energy intake ($P = 0.013$; OR = 10), accuracy of the amount of carbohydrate intake ($P = 0.025$; OR = 11), accuracy of eating schedule ($P = 0.041$; OR = 6), Sports ($P = 0.041$; OR = 6), compliance with drug consumption ($P = 0.003$; OR = 22).

The conclusions obtained from this study are the accuracy of carbohydrate and sucrose type diets, the accuracy of the diet of the amount of energy and carbohydrates, the accuracy of eating schedules, exercise and adherence to consuming drugs affect the level of FBS of DM type 2 patients.

Keywords: Diabetes Mellitus, Fasting Blood Sugar, diet compliance, medicine compliance

ABSTRAK

Diabetes Mellitus (DM) merupakan penyakit gangguan metabolik akibat kurangnya produksi insulin, tubuh tidak dapat menggunakan insulin yang diproduksi secara efektif, atau keduanya. Salah satu cara untuk mengetahui kondisi gula darah yaitu dengan melihat Kadar Gula Darah Puasa (GDP), Tujuan dalam penelitian ini Menganalisis faktor-faktor yang berhubungan dengan kadar gula darah puasa (GDP) pada pasien diabetes mellitus (DM) tipe 2 di Rumah Diabetes Mellitus Universitas Surabaya.

Desain penelitian ini adalah *case control*. Sampel penelitian sebesar 24 orang diambil secara acak menggunakan *simple random sampling* dan dibagi menjadi dua kelompok yaitu kelompok dengan GDP terkontrol dan kelompok dengan GDP tidak terkontrol. Pengumpulan data meliputi karakteristik responden, pengukuran berat badan, tinggi badan, lingkar perut, *food recall* 2x24 jam, *semi quantitative food frequency*, kuesioner tingkat pengetahuan, kebiasaan olahraga, dan kepatuhan konsumsi obat. Data kadar GDP diperoleh memuli rekam medis, sedangkan data kadar HbA1c diperoleh melalui pemeriksaan laboratorium. Data dianalisis menggunakan software SPSS *for windows* dengan uji *chi square*.

Hasil penelitian menunjukkan bahwa faktor yang berhubungan signifikan terhadap kadar GDP diantaranya ketepatan diet sumber karbohidrat ($p=0,025$; OR=11), ketepatan diet sumber sukrosa ($P=0,009$; OR=15,4), ketepatan jumlah asupan energi ($P=0,013$; OR=10), ketepatan jumlah asupan karbohidrat ($P=0,025$; OR=11), ketepatan jadwal makan ($P=0,041$; OR=6), Olahraga ($P=0,041$; OR=6), kepatuhan konsumsi obat ($P=0,003$; OR= 22).

Kesimpulan yang didapatkan dari penelitian ini yaitu ketepatan diet jenis karbohidrat dan sukrosa, ketepatan diet jumlah energi dan karbohidrat, ketepatan jadwal makan, olahraga dan kepatuhan mengkonsumsi obat mempengaruhi kadar GDP penderita DM tipe 2.

Kata Kunci : Diabetes Mellitus, Gula darah Puasa, kepatuhan diet, kepatuhan obat