

ABSTRACT

EFFECT OF ADDITION OF PALM SUGAR, ROCK SUGAR, AND COCONUT SUGAR ON THE GLYCEMIC INDEX VALUE OF NATA ALOE VERRA BEVERAGES

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Background: Diabetes Mellitus (DM) is a group of metabolic diseases characterized by high blood sugar levels, occurring due to abnormal insulin secretion. Eating low glycemic index food is one way to control blood sugar. Aloe vera contains chromium which can reduce blood glucose levels. Indonesian population consumes an average of 20.44 grams of sugar. According to the Ministry of Health, the limit of daily consumption is 50 grams of sugar. This study aims to determine the effect of adding palm sugar, rock sugar and coconut sugar on the glycemic index value of aloe vera beverage.

Metode: Experimental study, blood sampling was taken at minutes 0, 15, 30, 60, 90, 120 after test feeding, each treatment was given a distance of 3 days. Population were 10 respondents, method sampling was consecutive sampling.

Result: Differences in blood sugar levels in each food test using the Kruskal Wallis test there were significant comparisons ($p < 0.05$) on blood sugar uptake at 15, 30, 60, 90, and 120 minutes. The results of the calculation of the GI values on the test foods were, aloe vera beverages with the addition of rock sugar 81.5, aloe vera beverages with palm sugar 79.5, aloe vera beverages with the addition of coconut sugar 80.3, aloe vera beverages without sugar 69.

Conclusion: There are differences in blood sugar levels after giving white bread and aloe vera beverages with addition of rock sugar, palm sugar, coconut sugar, and without sugar. The glycemic index value of aloe vera beverages was starting from moderate to high.

Keywords: *Aloe Vera , Coconut Sugar, Glycemic Index, Rock Sugar, Palm Sugar.*

ABSTRAK

PENGARUH PENAMBAHAN GULA AREN, GULA BATU DAN GULA KELAPA TERHADAP NILAI INDEKS GLIKEMIK MINUMAN NATA LIDAH BUAYA (*Aloe Vera*)

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Latar Belakang: DM merupakan suatu kelompok penyakit metabolik dengan karakteristik tingginya kadar gula dalam darah, terjadi karena kelainan sekresi insulin. Mengonsumsi makanan berindeks glikemik rendah merupakan salah satu cara mengendalikan gula darah. Lidah buaya mengandung kromium dapat menurunkan kadar glukosa darah. Penduduk Indonesia rata-rata mengonsumsi 20,44 gr gula. Menurut kemenkes batas konsumsi gula 50 gr sehari. Penelitian ini bertujuan untuk mengetahui pengaruh penambahan gula aren, gula batu dan gula kelapa terhadap nilai indeks glikemik minuman nata lidah buaya

Metode: Penelitian eksperimental, pengambilan sampel darah sampel dilakukan pada menit 0, 15, 30, 60, 90, 120 setelah pemberian makan uji, setiap perlakuan diberi jarak 3 hari. Populasi yang diambil yaitu 10 responden, metode pengambilan sampel yaitu consecutive sampling.

Hasil: Perbedaan kadar gula darah pada setiap pangan uji menggunakan uji Kruskal Wallis terdapat perbandingan signifikan ($p < 0.05$) pada pengambilan gula darah pada menit 15, 30, 60, 90, dan 120. Hasil perhitungan nilai GI pada setiap pangan uji yaitu, pada minuman nata lidah buaya dengan penambahan gula batu 81,5, minuman nata lidah buaya dengan gula aren 79,5, minuman nata lidah buaya dengan penambahan gula kelapa 80,3, minuman nata lidah buaya tanpa gula 69. **Kesimpulan:** Terdapat perbedaan kadar gula darah setelah pemberian roti tawar dan minuman nata lidah buaya dengan penambahan gula batu, gula kelapa, gula aren dan tanpa gula. Nilai indeks glikemik minuman nata lidah buaya dari sedang hingga tinggi.

Kata kunci: Gula batu, Gula kelapa, Gula aren, Indeks Glikemik, Lidah buaya