

ABSTRAK

Karakteristik Fisik dan Kimiawi Formula Enteral Buah Berdasarkan Formulasi Bahan

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Pengembangan formula enteral sederhana dari bahan yang mudah didapat perlu dilakukan sehubungan dengan tingginya kebutuhan formula enteral bagi pasien terutama penggunaan di rumah. Bahan makanan potensial sebagai bahan dasar dalam modifikasi formula enteral adalah buah – buahan. Buah merupakan sumber vitamin, mineral, serat, dan antioksidan. Faktor yang dipertimbangkan dalam memilih formula enteral adalah karakteristik formula yang meliputi kandungan gizi dan mineral, serta fungsi saluran cerna. Tujuan penelitian untuk menganalisis dan menentukan karakteristik formula enteral yang sesuai persyaratan formula enteral standar yaitu energi $\pm 1,0 - 2$ kkal/ml, protein 12 – 20 %, lemak 30 – 40 %, dan karbohidrat 40 – 60 %, serta dapat dikonsumsi lewat oral maupun pipa makanan.

Penelitian ini merupakan penelitian eksperimental dengan Rancangan Acak Lengkap satu faktor yaitu formulasi bahan (formula A,B,C,D,dan E) dengan 4 kali pengulangan. Karakteristik yang dianalisis adalah viskositas, protein, lemak, air, abu, serat kasar, karbohidrat, dan energi. Uji statistik dengan *One Way Anova* (derajat kepercayaan 95%) dan uji lanjut *post hoc Duncan*. Kadar kalium dianalisis secara deskriptif.

Hasil analisis menunjukkan tidak ada perbedaan yang bermakna pada viskositas. Tetapi terdapat perbedaan pada kadar air ($p= 0,00$), kadar abu ($p = 0,001$), dan kandungan energi ($p=0,015$). Kadar kalium tertinggi terdapat pada formula E sebesar 260,73 mg/100 ml.

Karakteristik fisik dan kimiawi formula enteral buah terbaik adalah formula E. Setiap 1 gelas (200 ml) mengandung ± 325 kkal, 10 gram protein, 13 gram lemak dan 40 gram karbohidrat.

Kata kunci : buah – buahan, formula enteral, kalium, kandungan gizi, viskositas.

ABSTRACT

Physical and Chemical Characteristics of Fruit Enteral Formula Based on Formulation of Ingredients

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The development of simple enteral formulas from readily available ingredients are required with respect to the high need for enteral formulas especially in home use. Potential food ingredients as a base ingredient in the modification of enteral formulas are fruits. Fruits are great source of vitamins, minerals, fiber, and antioxidants. Factors to consider when choosing enteral formula are nutritional and mineral contents, also gastrointestinal function. The objective of the study was to examine and determine the best characteristics of enteral formulas appropriate to the requirements of standard enteral formulas ie energy \pm 1.0 - 2 kcal /ml, protein 12 - 20%, 30-40% fats, and carbohydrates 40-60%, and can be consumed orally or feeding tubes.

This was an experimental study with a completely randomized design of the factors that formulation (formula A, B, C, D, and E) with 4 repetitions. Characteristics analyzed are viscosity, protein, fat, water, ash, crude fiber, carbohydrates, and energy. Statistical test with One Way Anova (95% confidence degree) and Duncan post hoc advanced test. Potassium content presented in descriptive analysis.

The results showed no significant differences in viscosity. The differences was found in water content ($p = 0.00$), ash content ($p = 0.001$), and energy content ($p = 0.015$). The highest potassium content was found in formula E of 260,73 mg / 100 ml.

The best of physical and chemical characteristics was found in formula E. One serving (200 ml) contains \pm 325 kcal, 10 grams of protein, 13 grams of fat and 40 grams of carbohydrate.

Keywords : enteral formula, fruits, nutritional contents, viscosity