

Program Studi Pendidikan Profesi Dietisien, Tugas Akhir, Juni 2024

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**MODIFIKASI FORMULA ENTERAL DIET DIABETES MELLITUS BERBAHAN
LABU KUNING (*Curcubita moscata*) DAN WORTEL (*Daucus carota* L.)**

xiii, 89 halaman, 14 Tabel, 7 Gambar, 7 Lampiran

ABSTRAK

Latar Belakang: Diabetes Melitus (DM) merupakan gangguan metabolisme kronis akibat resistensi insulin yang menyebabkan peningkatan kadar glukosa darah. Pemberian makan pada pasien kritis yang mengalami gangguan makan secara oral dilakukan dengan formula enteral melalui pipa. Formula enteral DM dalam bentuk formula enteral komersil (FEK) memiliki harga relatif mahal sehingga meningkatkan biaya perawatan pasien. Formula enteral rumah sakit yang ada belum memenuhi standar formula enteral dari aspek kekentalan, rasa, dan densitas energinya. Perlu adanya modifikasi formula enteral yang lebih murah dan sesuai standar dengan memanfaatkan bahan lokal yakni labu kuning dan wortel yang potensial bagi pasien DM. **Tujuan:** Memperoleh modifikasi Formula Enteral bagi pasien Diabetes Mellitus berbahan dasar labu kuning dan wortel di RSUP dr. Sardjito Yogyakarta. **Metode:** Desain penelitian ini adalah deskriptif komparatif. Data standar resep, komposisi gizi, sifat fisik, sifat organoleptik dan biaya pembuatan (*food cost*) formula enteral modifikasi dianalisis secara deskriptif dan dibandingkan dengan FEK. Alat uji hedonik melibatkan 10 panelis terlatih yang dipilih secara *purposive sampling*. **Hasil:** Diperoleh formula enteral modifikasi dengan komposisi gizi per 1.000 ml meliputi energi 1.002,4 kkal, protein 40,1 g, lemak 39,1 g karbohidrat 121,2 g, densitas energy 1,0024 kkal/ml dengan indeks glikemik 44,1%. Hasil uji viskositas 4,97 cP dan osmolalitas 888,7 mOsmol/L. Hasil uji hedonik formula enteral modifikasi oleh 10 panelis menyatakan suka terhadap rasa (100%), aroma (90%), warna (90%), kekentalan (70%), dan penampilan (90%). *Food cost* formula enteral modifikasi Rp. 6.585/sajian (@250 ml). **Kesimpulan:** standar resep, komposisi gizi dan viskositas telah memenuhi standar formula enteral, namun osmolalitas belum memenuhi standar. Formula enteral modifikasi dapat diterima berdasarkan penilaian hedonik panelis dengan biaya pembuatan yang lebih murah dibanding formula enteral komersil.

Daftar Pustaka: 54 (2005 – 2023)

Kata Kunci : Diabetes Mellitus, Formula Enteral, Labu Kuning, Wortel

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**MODIFICATION OF DIABETES MELLITUS DIET ENTERAL FORMULA
USING PUMPKIN (*Curcubita moscata*) AND CARROTS (*Daucus carota* L.)**

xiii, 89 pages, 14 Tables, 7 Figures, 7 Appendices

ABSTRACT

Background: Diabetes Mellitus (DM) is a chronic metabolic disorder due to insulin resistance that causes an increase in blood glucose levels. Feeding in critical patients who experience oral eating disorders is done with enteral formula through a tube. DM enteral formula in the form of the commercial enteral formula (FEK) has a relatively expensive price that increases the cost of patient care. The existing hospital enteral formula does not meet the enteral formula standards in terms of viscosity, taste, and energy density. It is necessary to modify enteral formulas that are cheaper and in accordance with standards by utilizing local ingredients, namely pumpkin and carrots, which are potential for DM patients.

Purpose: To obtain a modified Enteral Formula for Diabetes Mellitus patients based on pumpkin and carrots at RSUP Dr. Sardjito Yogyakarta.

Methods: The design of this research is comparative descriptive. Data on standard recipes, nutritional composition, physical properties, organoleptic properties, and manufacturing costs (food costs) of modified enteral formulas were analyzed descriptively and compared with FEK. The hedonic test tool involved 10 trained panelists who were selected using purposive sampling

Results: A modified enteral formula was obtained with nutritional composition per 1.000 ml including energy 1,002.4 kcal, protein 40.1 g, fat 39.1 g, carbohydrate 121.2 g, energy density 1,0024 kcal/ml, glycemic index of 44.1 %. The viscosity test results were 4,97 cP and osmolality 888,7 mOsmol/L. The results of the hedonic test of the modified enteral formula by 10 panelists stated that they liked the taste (100%), aroma (90%), color (90%), viscosity (70%), and appearance (90%). Food cost of modified enteral formula Rp. 6,585/serving (@250 ml).

Conclusion: recipe standards, nutritional composition, and viscosity meet enteral formula standards, but osmolality does not meet standards. The modified enteral formula can be accepted based on the panelists' hedonic assessment with manufacturing costs that are cheaper than commercial enteral formulas.

Literatures : 54 (2005 – 2023)

Keywords : Diabetes Mellitus, Enteral Formula, Pumpkin, Carrots