

tal for 4 of them and a period of 28 consecutive days in an ambulant state for the other 2. Each can of the product provided 300 KCal, either as a substitute for breakfast for the 4 hospitalized patients, or as a partial substitute for lunch for the ambulatory patients. The 6 patients were put on a personalized calorie-reduced diet providing 4186 to 5860.4 kilojoules per day (1000 to 1400 Kcal) (average: 5023.2 kilojoules (1200 Kcal)). 1255.8 kilojoules (300 Kcal) of which was the product of Example 1. None of the 6 patients showed a digestive intolerance (no nausea, no vomiting, no diarrhoea, no anorexia), or extradiigestive intolerance during this prolonged clinical trial.

Adherence to taking the product was excellent: 375 ml of the product, 1255.8 kilojoules (300 Kcal), were effectively consumed daily by each of the 6 patients, for 21 days for 4 of them and for 28 days for the other 2. No appearance of anomalies in the make up of the blood, the liver examination (ASAT, ALAT, alkaline phosphates) the kidney function (presence of creatinine in the blood) or the plasmatic electrolytic balance (natremia, kaliemia, alkaline reserve) was noted in the 6 patients.

The weight loss of 0.4 to 5.2 kg, noted for the 6 patients (average: 2.7 kg), was accompanied by a lowering in 5 patients out of 6 of basal glycemia of 0.5 to 6 mmol/l (average: 3.8 mmol/l) and of post-prandial glycemia of 1.4 to 8.3 mmol/l (average: 3.4 mmol/l). In total, 375 ml of the product taken daily for 3 or 4 weeks by 6 diabetics of type II was perfectly tolerated both on a clinical and a biological level.

Various modifications of the compositions and method of the invention may be made without departing from the spirit or scope thereof and it is to be understood that the invention is intended to be limited only as defined in the appended claims.

What we claim is:

1. A liquid nutritional composition comprising a lipid fraction, a protein fraction and a glucide fraction comprising at least both glucose polymers and slowly absorbed glucides, wherein the fractions are selected such that the composition remains liquid after a heat treatment.

2. A composition of claim 1 in a stable, sterilized, ready-to-use form.

3. A composition of claim 1 wherein the glucide fraction is 5 to 40% by weight of the total weight.

4. A composition of claim 1 with a viscosity of less than  $0.05 \text{ kg} \times \text{m}^{-1} \times \text{sec}^{-1}$  (50 centipoises).

5. A composition of claim 4 with a viscosity of less than  $0.03 \text{ kg} \times \text{m}^{-1} \times \text{sec}^{-1}$  (30 centipoises).

6. A composition of claim 1 wherein the glucide fraction includes at least maltodextrins, modified starch and soluble fibers.

7. A composition of claim 1 wherein the glucide fraction has a glycemic index of not more than 70, measured in a healthy person, and it is at least 20% by weight of the total glucides in the composition.

8. A food or food supplement containing a neutral vehicle for oral or enteral administration and a composition of claim 1.

9. A process for the preparation of a liquid nutritional composition comprising:

forming an emulsion in aqueous phase with a lipid fraction and slowly absorbed glucides;

admixing the latter with a water-soluble phase of a protein fraction and a glucide phase comprised of glucose polymers and at least 20% by weight of slowly absorbed glucides, wherein the fractions are selected such that the composition remains liquid after a heat treatment.

10. The process of claim 9 wherein the slowly absorbed glucides in the emulsion are soluble fibers.

11. The process of claim 10 wherein the soluble fibers are 0.5% by weight of the emulsion.

12. The process of claim 11 wherein the fibers are soluble fibers of pectin.

13. The process of claim 9 wherein the final mixture is sterilized and then homogenized.

14. A method of supplying nutrients to a human comprising administering orally or enterally a liquid nutritional composition of claim 1.

15. A liquid nutritional composition for providing nutrition to a patient with a metabolic abnormality due to the abnormal metabolism of glucide or lipid comprising a lipid fraction, a protein fraction and a glucide fraction comprising at least both glucose polymers and slowly absorbed glucides wherein the fractions are selected such that the composition remains liquid after a heat treatment.

16. A method for providing nutrition to a patient with a metabolic abnormality due to the abnormal metabolism of glucide or lipid comprising the step of administering to the patient a composition comprising a lipid fraction, a protein fraction and a glucide fraction comprising at least both glucose polymers and slowly absorbed glucides.

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