ADAPTATION OF MARKETED PARENTERAL NUTRITION TO THE NEEDS OF A HOSPITAL

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Background

More and more hospitals are using commercially available parenteral nutrition for their patients, and there is an increasing supply to try to cover energy, protein and electrolyte needs.

Purpose

To analyze the adequacy of commercially available parenteral nutrition to the energy and protein needs of our patients.

Materials & Methods

Retrospective observational study of patients receiving parenteral artificial nutritional support from January to September 2022.

Demographic characteristics (sex, age), anthropometric data (weight, height, body mass index), energy and protein requirements, type of commercialized nutrition, were collected

- Energy requirements were adequate if the calories administered met at least 75% of the total requirements.
- Protein intake:
  Four levels of protein intake were determined

PROTEIN INTAKE	gr/Kg WEIGHT	CONSIDERED
LOW PROTEIN	<1	NOT OPTIMAL
NORMAL PROTEIN	Between 1-1,2	OPTIMAL
HIGH PROTEIN	Between 1,3 and 1,7	OPTIMAL
EXCESSIVE	>1,7	NOT OPTIMAL

Results

A total of 71 nutritional supports were performed corresponding to 68 patients, 36 women (50,7%), with a mean age of 70,9 years (SD=15,7 years).

Table 1. Demographic and nutritional characteristics	
Weight (Kg)	66,6 (SD=18,9)
Size (cm)	165,4 (SD=17,6)
Body mass index	24 (SD=6,6)
Basal energy expenditure (Kcals)	1353 (SD=223)
Total energy expenditure (Kcals)	1761 (SD=223)
Stress factor (%)	30
Duration therapy (Days)	8,9 (SD=8,13)

In 21 of the 33 patients, the speed had to be adapted because they did not meet the energy requirements with the available nutrition.

ENERGY REQUIREMENTS

53,42% of the patients (n=38) met the energy requirements

8 were on peripheral parenteral nutrition.
5 on supplementary parenteral nutrition.

PROTEIN REQUIREMENTS

46,48% (n=33) Didn`t meet the protein requirements

19 Due to low protein intake
14 Due to excessive protein intake

53,52% (n=38) Did meet the protein requirements

23 Patients presenting a hyperproteinic intake
15 Patients with a normal protein intake.

Conclusions

It would be necessary to have a wider variety of commercially available nutritional products in order to meet both the caloric and protein needs of our patients.