medical sciences forum

MDPI

Proceeding Paper

Long-Term Intestinal Failure and Home Parenteral Nutrition: A Single Center Experience †

Mafalda Padinha [1,2,*], Cátia Oliveira [2], Sandra Carlos [2], Ana Paula Santos [2], Marta Brito [2], Carla Adriana Santos [2] and Jorge Fonseca [1,2]

1 PaMNEC—Grupo de Patologia Médica, Nutrição e Exercício Clínico, Centro de Investigação Interdisciplinar Egas Moniz, 2829-511 Almada, Portugal; jorgedafonseca@hotmail.com
2 Hospital Garcia de Orta, 2805-267 Almada, Portugal; sofi.doliveira@gmail.com (C.O.); sandra.carlos@gmail.com (S.C.); apls@netcabo.pt (A.P.S.); marta.brito@hgo.min-saude.pt (M.B.); carla.adriana.santos@hotmail.com (C.A.S.)
* Correspondence: mafaldapadinha98@gmail.com
† Presented at the 5th International Congress of CiiEM—Reducing Inequalities in Health and Society, Online, 16–18 June 2021.

Abstract: Intestinal failure is the reduction in gut function below the minimum necessary for the absorption of macronutrients and/or water electrolytes. The based treatment for type II and III intestinal failure patients is home parenteral nutrition (HPN) and hydration (HPH). This is a case-series study of HPN/HPH patients of the Hospital Garcia de Orta, Portugal, where thirteen patients present different underlying disorders and various IVS needs of nutrition and/or hydration. Most presented type III failure and most of them survived a long period under HPN and/or HNH.

Keywords: intestinal failure; parenteral nutrition; parenteral hydration

Citation: Padinha, M.; Oliveira, C.; Carlos, S.; Santos, A.P.; Brito, M.; Santos, C.A.; Fonseca, J. Long-Term Intestinal Failure and Home Parenteral Nutrition: A Single Center Experience. *Med. Sci. Forum* **2021**, *5*, 46. https://doi.org/10.3390/msf2021005046

Academic Editors: Helena Barroso and Cidália Castro

Published: 29 July 2021

1. Introduction

The European Society for Clinical Nutrition and Metabolism (ESPEN) defines intestinal failure as the reduction in gut function below the minimum necessary for the absorption of macronutrients and/or water and electrolytes, such that intravenous supplementation (IVS) is required to maintain health and/or growth [1]. On a pathophysiological perspective, intestinal failure might be divided in three types: type I, short term, with IVS over a period of days/weeks; type II, a long-term subacute condition where IVS is maintained for weeks/months; type III, a chronic condition, in which IVS is required over months/years [2]. Conversely, the clinical classification is based on the IVS requirements of energy and volume; from A to D as the energy IVS, and from 1 to 4 as the volume of the IVS [1]. Although oral nutrient intake is possible in most individuals with intestinal failure, home parenteral nutrition (HPN) and/or hydration (HPH) remain the base of treatment, to prevent malabsorption-associated morbidity. Intestinal failure patients with type II and type III need a multi-disciplinary care, which is given in the Hospital Garcia de Orta. The aim of this study is to evaluate the effectiveness of HPN and HPH in the treatment and prognostic of intestinal failure.

2. Materials and Methods

This study was a case-series study of HPN/HPH patients of the Hospital Garcia de Orta, Almada, Portugal. All clinical files of long-term HPN/HPH patients were selected. The only exclusion criteria was an incomplete file. The present study is a sub-analysis of a large study approved by the ethical committee and the administration of our hospital.

3. Results and Discussion

This study is based on the data of thirteen clinical files, organized and presented in Table 1.

Table 1. Thirteen patients were eligible for this study and classified under the aforementioned criteria.

Patient	Sex	Age	Weight		Underlying Disorders	Pathophysiological Classification	Functional Classification	Clinical Classification	HPH/ HPN	Outcome
			Initial	Final						
B.P.	M	71	46.9	54.4	Colon cancer	Short bowel	type III	D2	HPN	Deceased
P.S.	F	84	45	60	intestinal embolism	Short bowel	type III	D2	HPN	Deceased
I.D.	M	65	63	73	Crohn disease	Short bowel + intestinal fistula	type II	D2	HPN	Alive with no IVS
C.J.	M	68	83	87	Colon Cancer	Short bowel	type III	A2	HPH	Deceased
B.S.	M	69	47	76	Familial amyloidotic polyneuropathy	Short bowel	type III	A2	HPH	Alive with IVS
M.G.	F	58	53.8	47.3	Malabsorption from rituximab	Extensive bowel mucosal disease	type III	D2	HPN	Deceased
M.C.	F	63	66.3	72	occlusion surgery	Short bowel + obstruction	type III	A2	HPH	Alive with IVS
M.C.G.	F	92	43.5	52	umbilical hernia	Short bowel	type III	D2	HPN	Deceased
R.S.	F	83	62.9	71	hernioplasty prosthesis fistula	Intestinal fistula	type II	D2	HPN	Alive with no IVS
C.B.	F	62	57	43.3	Intestinal dysmotility	Intestinal dysmotility	type III	D2	HPN	Alive with no IVS
J.L.	M	28	51.7	70.9	Crohn's disease	Short bowel	type III	D2	HPN	Alive with IVS
C.C.	F	47	53	68.1	Gynecological cancer surgery	Short bowel	type III	D2	HPN	Alive with IVS
J.R.	M	43	65	72	F. adenomatous polyposis	Short bowel	type III	A2	HPH	Alive with IVS

Most patients presented type III failure and the majority survived the home parenteral nutrition and/or hydration long period, therefore indicating that these, in fact, are effective forms of treatment for intestinal failure. The deaths observed were most likely due to concomitant morbidities.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Not applicable.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Pironi, L.; Arends, J.; Baxter, J.; Bozzetti, F.; Peláez, R.B.; Cuerda, C.; Forbes, A.; Gabe, S.; Gillanders, L.; Holst, M.; et al. ESPEN endorsed recommendations. Definition and classification of intestinal failure in adults. *Clin. Nutr.* **2015**, *34*, 171–180. [CrossRef] [PubMed]
2. Pironi, L.; Arends, J.; Bozzetti, F.; Cuerda, C.; Gillanders, L.; Jeppesen, P.B.; Joly, F.; Kelly, D.; Lal, S.; Staun, M.; et al. ESPEN guidelines on chronic intestinal failure in adults. *Clin. Nutr.* **2016**, *35*, 247–307. [CrossRef] [PubMed]