Title: Demographic, clinical and nutritional characteristics of the Spanish population with Amyotrophic Lateral Sclerosis.

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Abstract

Introduction: Amyotrophic Lateral Sclerosis (ALS) is a chronic, progressive, neurodegenerative disease that results in the death of motor neurons. The usual nutritional intake of the patients is a factor that conditions the prognosis and evolution of the disease. Therefore, the aim of this study was to describe the socio-demographic, clinical characteristics and nutritional adequacy of Spanish patients affected by ALS. **Methods**: A cross-sectional descriptive study was carried out. A demographic and clinical anamnesis and an anthropometric assessment were performed. Nutritional intake was recorded and compared with Dietary Reference Intakes (DRI). **Results**: 40 subjects (25 men and 15 women) aged 54.7± 10.17 years. Mean weight and height were 67.99 ± 8.85 kg and 167.83 ± 8.79 cm, respectively. There was no relationship between the part of Spain origin of the patients and the clinical phenotype, time of diagnosis, debut year or family history. Clinical phenotype did not influence time of diagnosis. Caloric and protein intake was adequate, while carbohydrate was significantly below the DRI. Lipids were significantly above the recommendation. **Conclusions**: The Spanish population with ALS should modify their dietary habits by reducing the intake of fat and increasing the consumption of complex carbohydrates which would improve the progression and symptoms of the disease.

Recent Publication

1. Drehmer E, Navarro-Moreno MA, Carrera-Juliá S, Moreno ML. A comparative study between olive oil and corn oil on oxidative metabolism. Food and Function. 2022; 13(13):7157-7167. https://doi.org/10.1039/d2fo00919f

2. Benlloch M, Cuerda M, Drehmer E, Platero JL, Carrera S, López-Rodríguez MM, Cerón JJ, Tvarijonaviciute A, Navarro-Moreno MA, Moreno ML, de la Rubia Ortí JE. Possible Reduction of Cardiac Risk after Supplementation with Epigallocatechin Gallate and Increase of Ketone Bodies in the Blood in Patients with Multiple Sclerosis. A Pilot Study. Nutrients. 2020; 12(12):3792 https://doi.org/ 10.3390/nu12123792

3. Drehmer E, Platero JL, Carrera S, Moreno ML, Tvarijonaviciute A, Navarro-Moreno MA, López-Rodríguez MM, de la Rubia Ortí JE. The relation between eating habits and abdominal fat, anthropometry, PON1 and IL-6 levels in patients with Multiple Sclerosis Nutrients. 2020; 12(3):744 https://doi.org/ 10.3390/nu12030744
4. Carrera-Juliá S, Moreno ML, Barrios C, de la Rubia Ortí JE, Drehmer E. Antioxidant Alternatives in the Treatment of Amyotrophic Lateral Sclerosis: A Comprehensive Review. Frontiers in Physiology. 2020; 11:63 https://doi.org/10.3389/fphys.2020.00063

5. Drehmer E, Navarro-Moreno MA, Carrera-Juliá S, Villar VM, Moreno ML. Oxygenic metabolism in nutritional obesity induced by olive oil. The influence of vitamin C. Food and Function. 2019; 10(6):3597-3580. https://doi.org/10.1039/c8fo02550a

Biography (50-100 words)

Mari Luz Moreno has completed her international PhD with excellent mark at the age of 27 years from Universidad de Valencia, Spain. She is professor in the Department of Physiology of Universidad Católica de Valencia "San Vicente Mártir". She expanded her knowledge through a stay at Kings' College London, UK. During her 10 years in the research area, she has published numerous scientific publications in journals indexed in Journal Citation Reports first quartile, and has participated in competitive projects and communications at international conferences.

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