

Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

admissions and a greater likelihood of admission to long-term care at 30 days. Similar findings are evident at 6 months. Further research should assess the impact of nutritional intervention on hospital readmission or institutionalisation in the malnourished group.

Disclosure of Interest: None declared

#### P397

# THE RELATION BETWEEN DELIRIUM AND MALNUTRITION IN HOSPITALIZED GERIATRIC PATIENTS

A.T. Çinçin\*, G. umurca. Geriatrics, MARMARA UNIVERSITY MEDICAL FACULTY, istanbul, Turkey

**Rationale:** Delirium which is an acute confusional state with fluctuating course during the day is frequently observed in elderly patients experiencing acute stress such as hospitalization. In our study, which we conducted on the delirium awareness day, we determined the point prevalence of delirium in geriatric inpatients in our country and revealed its relationship with malnutrition

**Methods:** Sixty-two patients aged 60 years or older who were hospitalized in the Internal Medicine Clinic were included in the study.Mini Nutritional Assessment (MNA) to assess nutritional status of patients, FRAIL frailty scale to assess frailty status, ADL, IADL to assess functional status, delirium risk factors and delirium evaluation test (CAM) were applied. If there was mortality during follow up, the date was stated.

**Results:** The mean age of the patients was 71,9+8,21. Twenty six patients (41.9%) were female. According to CAM, delirium was detected in 18 (29%) of the patients. According to the FRAIL scale, 21 (33.9%) patients were prefrail and 41 (66.1%) were frail. All 18 (100%) cases developing delirium were found to be frail. In multivariate logistic regression analysis, being older than 70 years, low Katz ADL score and low MNA score were found to be independent risk factors for delirium development

**Conclusion:** Delirium and malnutrition are common in hospitalized elderly patients, and malnutrition is a risk factor for delirium. Health care workers should be aware of these geriatric syndromes, recognize them early, and develop delirium prevention strategies.

Disclosure of Interest: None declared

### P398

## MITOCHONDRIAL RESPIRATION IN FATIGUE SYNDROME DURING AGEING

C. Herpich\*<sup>1</sup>, M. Ost <sup>2</sup>, K. Franz <sup>1,3</sup>, S. Klaus <sup>2</sup>, U. Mueller-Werdan <sup>3,4</sup>, K. Norman <sup>1,3</sup>. <sup>1</sup> Nutrition and Gerontology, German Institute of Human Nutrition Potsdam-Rehbruecke, Nuthetal, Germany; <sup>2</sup> Physiology of Energy Metabolism, German Institute of Human Nutrition Potsdam-Rehbruecke, Nuthetal, Germany; <sup>3</sup> Nutrition and Body Composition - Research Group on Geriatrics (FGG), Charité - University Medicine Berlin, Germany; <sup>4</sup> Protestant Geriatric Center Berlin (EGZB), Berlin, Germany

**Rationale:** atigue is a complex syndrome associated with exhaustion not relieved by sleep. It frequently occurs in older adults in the context of chronic disease and malnutrition. Mitochondrial dysfunction and therefore an impaired energy production could contribute to the development of fatigue. The aim of this analysis was to evaluate mitochondrial respiration of peripheral blood mononuclear cells (PBMCs) in older patients with and without fatigue.

**Methods:** Fatigue was determined according to the *Brief Fatigue Inventory*. Using high-resolution respirometry, a mitochondrial stress test was conducted in freshly isolated PBMCs. To gain insights in mitochondrial functionality and the ATP-producing respiratory chain, routine, leak, ATP-turnover related and maximum oxygen consumption rates (OCR) of PBMCs were measured. Mann-Whitney U test was used to compare nonnormally distributed variables, Student's t-test for normally distributed variables.

**Results:** 23 geriatric patients (77.8±4.9 years; 43.5% female) with and 22 (75.4±5.4 years; 45.5% female) without fatigue were analyzed.

Mitochondrial respiration was significantly lower than in patients with fatigue than in patients without (Tab.1).

**Tab.1** Overview of mitochondrial OCRs

	No fatigue (n=22)	Fatigue (n=23)	p-value
Routine OCR [pmol/s/10 <sup>6</sup> cells]		4.54 (1.11)	
Leak OCR [pmol/s/10 <sup>6</sup> cells]	0.70 (0.75)	0.63 (0.50)	0.064 <sup>b</sup>
Maximum OCR [pmol/s/10 <sup>6</sup> cells]	8.03 (3.67)	6.33 (2.01)	$0.013^{a}$
ATP-turnover related OCR [pmol/s/10 <sup>6</sup> cells]	4.81 (2.56)	3.96 (1.26)	0.035 <sup>b</sup>

Median (Interquartile range), a Mann-Whitney U test, b Student's t-test

**Conclusion:** Whether the lower mitochondrial respiration in fatigue is accompanied with reduced mitochondrial activity in other organs (e.g muscle) remains to be elucidated.

Disclosure of Interest: None declared

### P399

# NUTRITIONAL INPATIENT CARE IN GERIATRIC POPULATION DURING COVID-19 OUTBRAKE: SOME BASICS FORGOTTEN IN THE RUSH?

M.I. Álvarez Schettini, L.A. Vázquez, F. Cruz, M.C. García Gómez, L. Ramos, A. González, C.H. Ortega, T. Gordo, A. Alonso, C. Montalban\*. Endocrinology & Nutrition, Hospital Universitario Marqués de Valdecilla, Santander, Spain

**Rationale:** Nutrition is often underestimated in the usual medical care in our hospitals and the impact of a suboptimal nutritional approach in this setting has been reported widely, especially in the elderly. Recently our hospital wards have been briskly and temporary overloaded by patients with COVID-19, most of them at older ages. We do not have much information about the nutritional approach during this unexpected situation.

Aim: To describe basic aspects of nutritional care in inpatients of a tertiary hospital in Spain: diet prescription and use of nutritional support in patients admitted to internal medicine and pneumology inpatient units, specially focused in older population.

**Methods:** A retrospective, cross sectional, descriptive study was performed. Medical records were analyzed to review nutritional care related aspects in all the SARS-CoV-2 PCR positive patients located at internal medicine and pneumology wards of a single hospital the last day of April 2020. Type of prescribed diet and nutritional support (oral supplements/ tube feeding) were analyzed.

**Results:** 27 patients were included (70.4% female) (median age 84; IQR 68-87), but data of patients over 75 (n=18; 66,6%) were finally analyzed. Among them, patients described as partially or totally dependent individuals regarding instrumental activities of daily living were 72.2%. Texture-modified (pureed) food was administered in 16 patients (88.9%). Oral nutritional supplements were prescribed in 4 patients (22.2%) and tube feeding formula in 1 (5.6%).

**Conclusion:** Most inpatients with COVID-19 in general wards are over 75, with a high prevalence of disability. Most of them were nourished using texture-modified food, considered as a risk factor for undernutrition if not supplemented with oral/enteral nutritional support. Nutritional care in COVID-19 elderly patients is specially challenging moreover if they are isolated without caregivers in their rooms most of the time in order to avoid SARS-CoV-2 infection dissemination. A wider and/or more structured use of oral or enteral nutritional support could help to improve and ease the nutritional approach in this challenging health care situation.

**Disclosure of Interest**: M. I. Álvarez Schettini: None declared, L. A. Vázquez Speakers Bureau of: Fresenius, F. Cruz: None declared, M. C. García Gómez Speakers Bureau of: Fresenius, Nestlé, L. Ramos: None declared, A. González Speakers Bureau of: Nestlé, Abbott, Nutavant, C. H. Ortega: None declared, T. Gordo: None declared, A. Alonso: None declared, C. Montalban Speakers Bureau of: Nestlé