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SCIENTIFIC LETTER

Changes in the clinical profile of acutely hospitalized older patients after the COVID-19 pandemic

Cambios en el perfil clínico de pacientes hospitalizados en una unidad geriátrica de agudos tras la pandemia por COVID-19

Besides the rising number of cases and fatalities with Coronavirus Disease 2019 (COVID-19), the social isolation generated by the COVID-19 lockdown has led to chronic loneliness and boredom, which has detrimental effects on physical activity (PA) levels and mental well-being,¹ as well as modifications in nutritional habits, especially in the older population. Moreover, the adopted measures have led to changes in the structural organization of hospitals to offer the best health care. This change in healthcare delivery raises the need for the development and application of telemedicine. Our aim was to evaluate the consequences of the pandemic on the clinical characteristics of geriatric patients and to summarize the changes in the use of health resources promoted by the pandemic in a tertiary hospital in Spain.

Patients were recruited from the Acute Care for Elderly (ACE) unit at the Hospital Universitario de Navarra (Spain). The inclusion criteria were: age ≥ 75 ; Barthel Index score ≥ 60 ; being able to walk independently and collaborate with the research team. Exclusion criteria included very severe cognitive decline, terminal illness or uncontrolled acute disease. Data of 2021 were compared with a previously recruited cohort of patients from a transversal unicenter-based randomized control trial.² Individual interviews and electronic medical records were used to obtain demographic, epidemiological and clinical information.

Between-group comparisons were performed using the unpaired t-test for parametric data and the Mann–Whitney test was used for nonparametric variables. The normality of data was checked graphically and through the Kolmogorov–Smirnov test. The significance level was established at $p < 0.05$. All statistical analyses were made with SPSS, version 21 (IBM Corp).

A total of 170 individuals were recruited for the study (122 included before and 50 after the outbreak of COVID-19). The mean age of the participants was 87 ± 4.8 years (ranging from 76 to 101 years). We found that, during the pandemic, older patients had higher Body Mass Index (BMI), increased levels of self-reported pain and a worse health status perception (Table 1). No significant differences were found on the other parameters examined but, notably,

the MNA showed a trend toward higher scores. Regarding the use of health resources, we found an increase of 3.4% in geriatric hospitalization, without variations in mean age or sex. Moreover, all face-to-face consultations decreased while all telematic consultations, either in general geriatric consultations or at day hospital, increased up to 108%.

The main finding of the study is that the clinical characteristics of the older medical patients admitted to the ACE unit has significantly changed during the pandemic compared to the COVID-19 previous era. Indeed, acutely hospitalized patients currently presented higher body mass index, increased self-reported pain, and worse well-being status perception. Additionally, older patients also showed a trend for greater MNA scores which, together with the changes in BMI, may reflect a higher likelihood of metabolic alterations and sarcopenic obesity. These clinical differences may be due to a combination of factors including adverse consequences as a result of the lockdown which leads to anxiety and impulsiveness for eating, an impaired capacity of old adults to buy fresh foods and prepare homemade meals, and reduced PA levels. During the Spanish lockdown, Pérez-Rodrigo et al.,³ have reported changes in lifestyle with special emphasis on PA and eating habits, showing that being less active and having a higher body mass index were risk factors for unhealthy eating. Furthermore, Puntillo et al.,⁴ observed that risk factors for pain (i.e. age, decreased physical activity and mental health status) have been boosted by the pandemic, and proper medical attention has also been delayed, probably promoting iatrogenesis. Previous studies have exposed the negative consequences of the COVID-19 pandemic on the diagnosis and treatment of cancer,⁵ heart disease,⁶ and other chronic diseases commonly detected in primary care.⁷ Briguglio et al.⁸ have brought to light the dramatic impact of the lockdown especially in frail older patients, considering social isolation as the cornerstone of the deterioration cascade. In the present study, we showed some important side effects of isolation in older adults, especially as consequences of altered mental health and healthy habits. Not only for the current situation but also the upcoming crisis, these results should guide us when making decisions. In addition, considering the difficulties of managing telemedicine in older adults,⁹ and taking into account the increasing use of telehealth, health professionals should establish suitable criteria for face-to-face medical assessment in order to continue giving the best medical attention while adapting our healthcare system to this new era.

Table 1
Demographic and clinical characteristics of patients.

Variable	2019	2021	p value between groups
Age, y	87.5 (4.6)	86.1 (5.1)	0.08
BMI	26.6 (5.1)	28.8 (5.7)	0.02
Barthel Index 2 weeks before hospitalization	89.3 (11.6)	88.9 (11.2)	0.69
Barthel Index at hospital admission	76.7 (18.6)	74.3 (20.0)	0.48
Yesavage GDS	2.9 (2.8)	3.3 (2.6)	0.19
Categorical scale of pain	1.3 (2.5)	3.1 (3.2)	<.001
Quality of life – EQVAS	70.7 (24.9)	63.3 (25.6)	0.04
SPPB scale	4.7 (2.7)	4.3 (2.5)	0.40
Handgrip, kg	16.4 (6.7)	16.1 (6.5)	0.86
MMSE scale	22.3 (5.1)	22.8 (5.0)	0.54
MNA, median (IQR), score	10 (3.0)	11 (3.3)	0.06
CIRS-G, median (IQR), score	13 (7.0)	12 (6.3)	0.31

Data presented as mean (SD) otherwise stated. Significance level $p < .05$. BMI: body mass index; GDS: Geriatric Depression Scale; EQVAS: EuroQol visual analog scale; SPPB: Short Physical Performance Battery; MMSE: Mini-Mental State Examination; CIRS-G: Cumulative Illness Rating Scale-Geriatric.

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