sin embargo, cerca de un 70% de nonagenarios habían sufrido algún episodio de FRA durante su vida; quizás estos episodios, pudieran haber contribuido al desarrollo de la ERC, como demostraron Ishani et al. en su estudio, sobre una cohorte de más de 230.000 pacientes, sugiriendo que el FRA acelera la progresión renal[6].

En lo que se refiere al tratamiento de la ERC y sus complicaciones, nuestros datos muestran la polifarmacia en más del 90% de pacientes. Dentro de estos fármacos algunos pueden resultar especialmente «peligrosos» en pacientes tan longevos, tanto por sus efectos secundarios, como por complicaciones asociadas a su uso, más aún, si concurren ciertas situaciones como depleción de volumen[7,8]: En este trabajo, el 80% recibían diuréticos, —una parte de antecedentes de FRA se relacionaban con ellos— y también, más de un 40% recibían anticoagulantes orales.

En conclusión, los pacientes nonagenarios con enfermedad renal crónica (sin diálisis) presentan una elevada comorbilidad asociada y más del 90% de ellos reciben polifarmacia.

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Atypical symptoms of COVID-19 in hospitalised oldest old adults

Síntomas atípicos de COVID-19 en el adulto mayor hospitalizado

Infection misdiagnosis is common in older adults since infections may present differently than in the general population[1] COVID-19 is typically signalled by three symptoms: fever, cough and dyspnoea and is particularly fatal for older adults.[2,3] Atypical symptoms recognition in these extremely vulnerable populations is critical for early detection, screening and intervention. However, atypical symptoms in older adults are not well established. We report clinical characteristics and presenting symptoms of COVID-19 in advanced age patients attended in a specialized geriatric hospital in Madrid, a city where the SARS-CoV-2 pandemic was particularly bad. The study protocol was approved by the Ethics Committee, under the ID: PI-4131.

Between March 20 and April 30, 2020, we attended 111 patients with probable or definitive COVID-19 diagnosis.[4] Table 1 shows demographic and clinical characteristics, including geriatric assessments. Mean age (85.5 ± 6.6 y) is higher than in studies, which defined COVID-19 clinical characteristics.[5] Many patients were frail with significant co-morbidities. However, a high proportion had no or only mild functional or cognitive impairment (Table 1). 47 patients (42.3%) did not present fever and 27 (24.3%) neither fever nor cough. Amongst atypical symptoms stands out the delirium (hyperactive or hypoactive) assessed by Confusion Assessment Method (CAM),[6] present in more than 40% of patients, and high prevalence of falls as presenting symptom (14.4%). Fever absence was significantly more frequent in patients with falls compared to patients with other presenting symptoms (68.5%, vs. 37.9%; $p = 0.021$). Nearly 93% of patients had radiographically confirmed pneumonia.

Global in-hospital mortality was 45.9%. Patients with delirium had nearly double in-hospital death risk compared to those with other presenting symptoms (61.7% vs. 34.4%; $p = 0.004$). Interestingly, patients with delirium presented lower functional status (Barhtel Index: 58.5 ± 30 vs. 77.2 ± 27.7; $p = 0.001$), more frailty (proportion of at least moderate frailty: 54.3% vs. 29.6%; $p = 0.009$) and more cognitive impairment (proportion of at least moderate dementia: 28.3% vs. 12.5%; $p = 0.038$) than patients without delirium. Fever is the key method for COVID-19 screening.[7] However, in older adults awareness of other clinical features is mandatory, including falls and delirium, which may coincide with infection onset.[1,8] Cardinal delirium manifestations are cognitive disturbances with impaired orientation, temporal fluctuation, and onset in few hours or days.[9,10] In our series it is associated to poorer prior functional and cognitive status, and higher mortality.

Physicians and general population must gain knowledge of the COVID-19 special and unique aspects in geriatric populations lowering thus suspicion and testing thresholds for SARS-CoV-2 in older adults.

Table 1
Demographic characteristics and symptoms at admission.

n	111
Female, n (%)	54 (48.6)
Age (years)	85.5 ± 6.6
Age range (years)	70–97
Duration of symptoms before diagnosis	5.7 ± 3.5
Nursing home residents	55 (49.5)
Type of diagnosis	
Clinical and radiologic	27 (24.3)
Laboratory	84 (75.7)
Polypharmacy (5–10 drugs)	49 (44.1)
Excessive polypharmacy (≥10 drugs)	24 (21.6)
Charlson Comorbidity Index	2.5 (±2.0)
Charlson Comorbidity Index categories	
No comorbidity (CCI: 0–1)	30 (27.0)
Low comorbidity (CCI: 2)	31 (27.9)
High comorbidity (CCI ≥ 3)	49 (44.1)
Barthel index	69.1 ± 30.3
Barthel index categories	
Independent (BI: 100)	27 (24.3)
Mild dependence (BI: 60–99)	47 (42.3)
Moderate dependence (BI: 40–55)	13 (11.7)
Severe dependence (BI: 20–35)	8 (7.2)
Total dependence (BI < 20)	12 (10.8)
Global deterioration scale	
No cognitive decline (GDS: 1)	47 (42.3)
Age associated memory impairment/Mild cognitive decline (GDS: 2,3)	23 (20.7)
Mild Dementia (GDS: 4)	19 (17.1)
Moderate Dementia (GDS: 5)	13 (11.7)
Moderately Severe Dementia (GDS: 6)	3 (2.7)
Severe Dementia (GDS: 7)	5 (4.5)
Clinical frailty scale; n (%)	
Robust (CFS: 1–3)	34 (30.6)
Vulnerable (CFS: 4)	4 (3.6)
Mild (CFS: 5)	28 (25.2)
Moderate (CFS: 6)	20 (18.0)
Severe (CFS: 7)	17 (15.3)
Very severe (CFS: 8)	7 (6.3)
Classical symptoms	
Cough	63 (56.8)
Fever	64 (57.7)
Dyspnoea	64 (57.7)
Cough + fever	43 (38.7)
Cough + fever + dyspnoea	25 (22.5)
Atypical symptoms	
Any type of delirium	47 (42.3)
Hyperactive delirium	33 (29.7)
Hypoactive delirium	14 (12.6)
Falls	16 (14.4)
Diarrhoea	4 (3.6)
Asthenia or loss of appetite	63 (53.8)
Pneumonia	103 (92.8)
Death, n (%)	51 (45.9)
Length of hospital stay	12.2 ± 7.8

BI: Barthel index. CCI: Charlson Comorbidity Index. CFS: Clinical Frailty Scale. GDS: Global Deterioration Scale. Longitudinal data are shown as mean (±standard deviation).

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