

Behavior of COVID-19 in people under 60 years of age in a tertiary hospital in Mexico City

Comportamiento de la COVID-19 en personas menores de 60 años en un hospital de tercer nivel de la Ciudad de México

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Dear Editor,

In a tertiary care hospital in Mexico City, a cross-sectional study was conducted, analyzing 1006 patients with a SARS-CoV-2 infection confirmed by real-time polymerase chain reaction test, from February to June 2020. Patients under 60 years of age represented the 65.5% (659), with a mean age of 46.2, 63.7% (419) were men, 71.6% had at least one comorbidity and 25.9% (168) required admission to the respiratory intensive care unit (Table 1). When a multiple logistic regression model was performed, it was found that the patients under 60 years of age had an odds ratio (OR) of 0.36 ($p < 0.001$), that is, a 64% lower chance of dying from COVID-19, compared to the over-60s. Men had an OR of 1.46 ($p = 0.015$) for dying compared to women, and the people with kidney disease had an OR of 2.02 ($p = 0.007$) for dying compared to those who did not have one. According to the literature, diabetes, high blood pressure, and cardiovascular and respiratory diseases are associated with a higher mortality; however, none of these variables was significant in our study¹. The 28.4% of our patients did not have any comorbidity; a possible explanation could be found in the susceptibility and genetic variability in major histocompatibility complex class I genes (human leukocyte antigen A, B and C) and the severity of the

SARS-CoV-2 infection². In Mexico, the group of patients under 60 years of age corresponds to the 52.07% of the infected people, and generally, the onset presents with atypical manifestations, and milder than in older patients. In our study, clinical severity at hospital admission was moderate in 48.6%. The people at high risk should have prevention measures in place, as they will probably need hospital care if they contract the disease. In our series, 13.3% did not take social distancing measures, and 20.3% of the patients died, increasing the years of life potentially lost attributable to premature death^{3,4}.

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Conflicts of interest

The authors declare no conflicts of interest.

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Table 1. Sociodemographic and clinical characteristics of the population by age group

Variable	Total (n = 1006)	18-60 years old (n = 659)	≥ 61 years old (n = 339)	p
Age, years, mean (SD)	54.3 (14.8)	46.2 (10.5)	70.1 (7.0)	< 0.001 ^a
Gender, n (%)				
Female	382 (38.0)	239 (36.3)	139 (41.1)	
Male	622 (62.0)	419 (63.7)	199 (58.9)	0.139 ^b
Comorbidity, n (%)				
No	265 (26.3)	187 (28.4)	76 (22.4)	
Yes	741 (73.7)	472 (71.6)	263 (77.6)	0.043 ^b
Diabetes mellitus, n (%)				
No	694 (69.0)	478 (72.5)	210 (61.9)	
Yes	312 (31.0)	181 (27.5)	129 (38.1)	0.001 ^b
High blood pressure, n (%)				
No	709 (70.5)	503 (76.3)	201 (59.3)	
Yes	297 (29.5)	156 (23.7)	138 (40.7)	< 0.001 ^b
Smoking				
No	934 (93.2)	610 (92.7)	316 (94.0)	
Yes, currently	51 (5.1)	35 (5.3)	16 (4.8)	
In the past	17 (1.7)	13 (2.0)	4 (1.2)	0.613 ^b
Cardiopathy, n (%)				
No	973 (96.7)	647 (98.2)	318 (93.8)	
Yes	33 (3.3)	12 (1.8)	21 (6.2)	< 0.001 ^b
Kidney disease, n (%)				
No	929 (92.4)	606 (92.0)	317 (93.8)	
Yes	76 (7.6)	53 (8.0)	21 (6.2)	0.297 ^b
COPD				
No	989 (98.6)	653 (99.5)	328 (96.8)	
Yes	14 (1.4)	3 (0.5)	11 (3.2)	0.001 ^c
Social distancing measures, n (%)				
Yes	892 (89.1)	568 (86.7)	316 (93.5)	
No	109 (10.9)	87 (13.3)	22 (6.5)	0.001 ^b
Required RICU, n (%)				
No	685 (69.5)	480 (74.1)	201 (61.1)	
Yes	300 (30.5)	168 (25.9)	128 (38.9)	< 0.001 ^b
Baseline clinical severity, n (%)				
Mild	154 (15.4)	133 (20.3)	19 (5.6)	
Moderate	462 (46.2)	318 (48.6)	143 (42.3)	
Severe	384 (38.4)	203 (31.0)	176 (52.1)	< 0.001 ^b
Died or lived, n (%)				
Lived	719 (72.6)	519 (79.7)	197 (59.5)	
Died	271 (27.4)	132 (20.3)	134 (40.5)	< 0.001 ^b

SD: standard deviation; COPD: chronic obstructive pulmonary disease; RICU: respiratory intense care unit.

^aMann-Whitney U-test.^bChi-square test.^cFischer exact test.

Ethical disclosures

Protection of human and animal subjects. The authors declare that no experiments were carried out on humans or animals for this research.

Data confidentiality. The authors declare that they have followed the protocols of their work center regarding the publication of patient data.

Right to privacy and informed consent. The authors declare that no patient data appears in this article.

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