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Background and objectives: Post COVID-19 syndrome was defined by the World Health Organization (WHO) in late 2021 as “a condition that occurs in individuals with a history of probable or confirmed SARS-CoV-2 infection, usually 3 months from the onset of COVID-19 with symptoms that last for at least 2 months and cannot be explained by an alternative diagnosis.” Our aim was to describe the prevalence of post-COVID-19 syndrome, symptoms frequency, and the impact on quality of life (QoL) of patients who had severe or critical COVID-19.

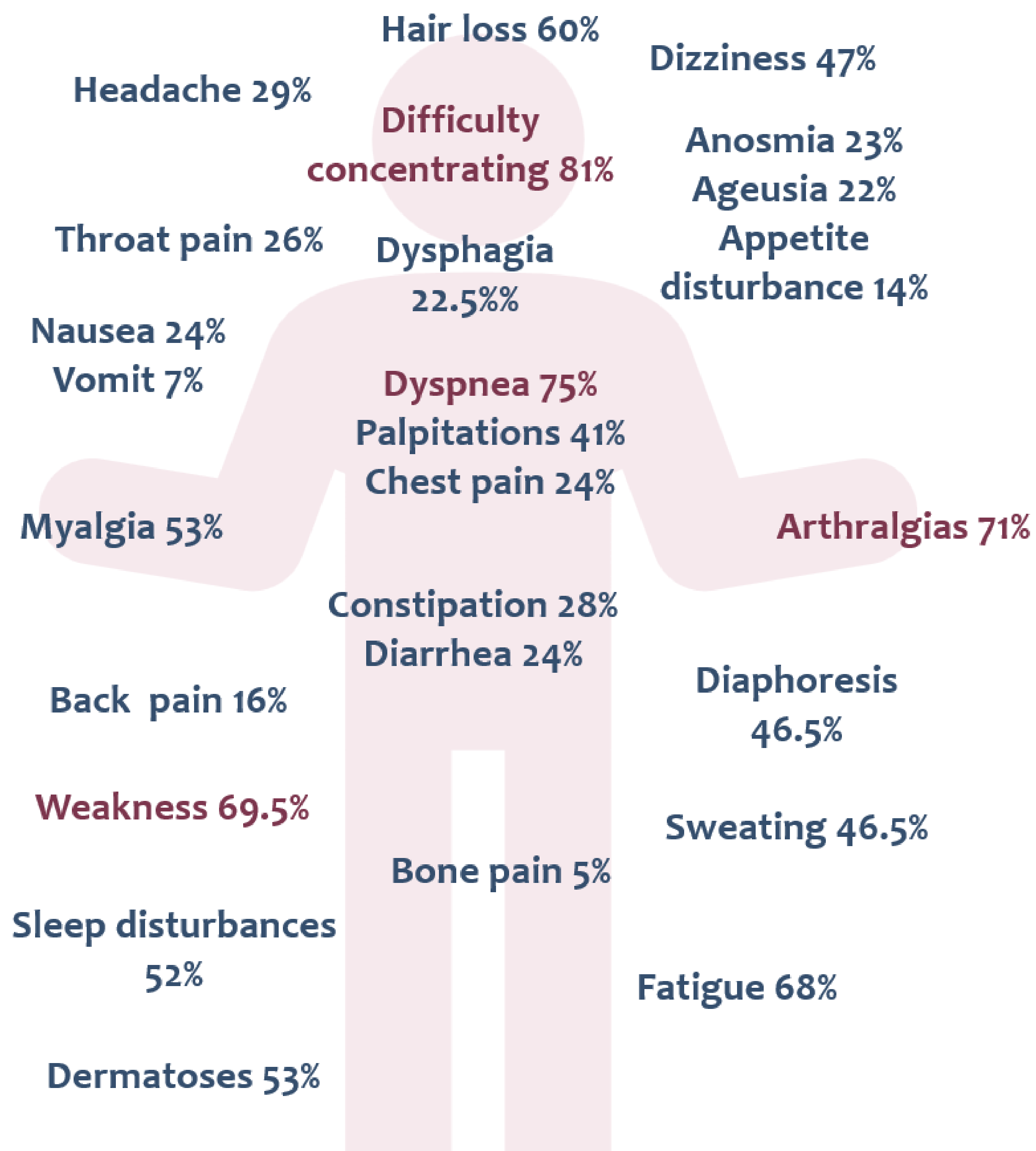
Results:

We found a prevalence of post-COVID-19 of **76% (187/246)** in patients who were hospitalized for severe or critical COVID-19.

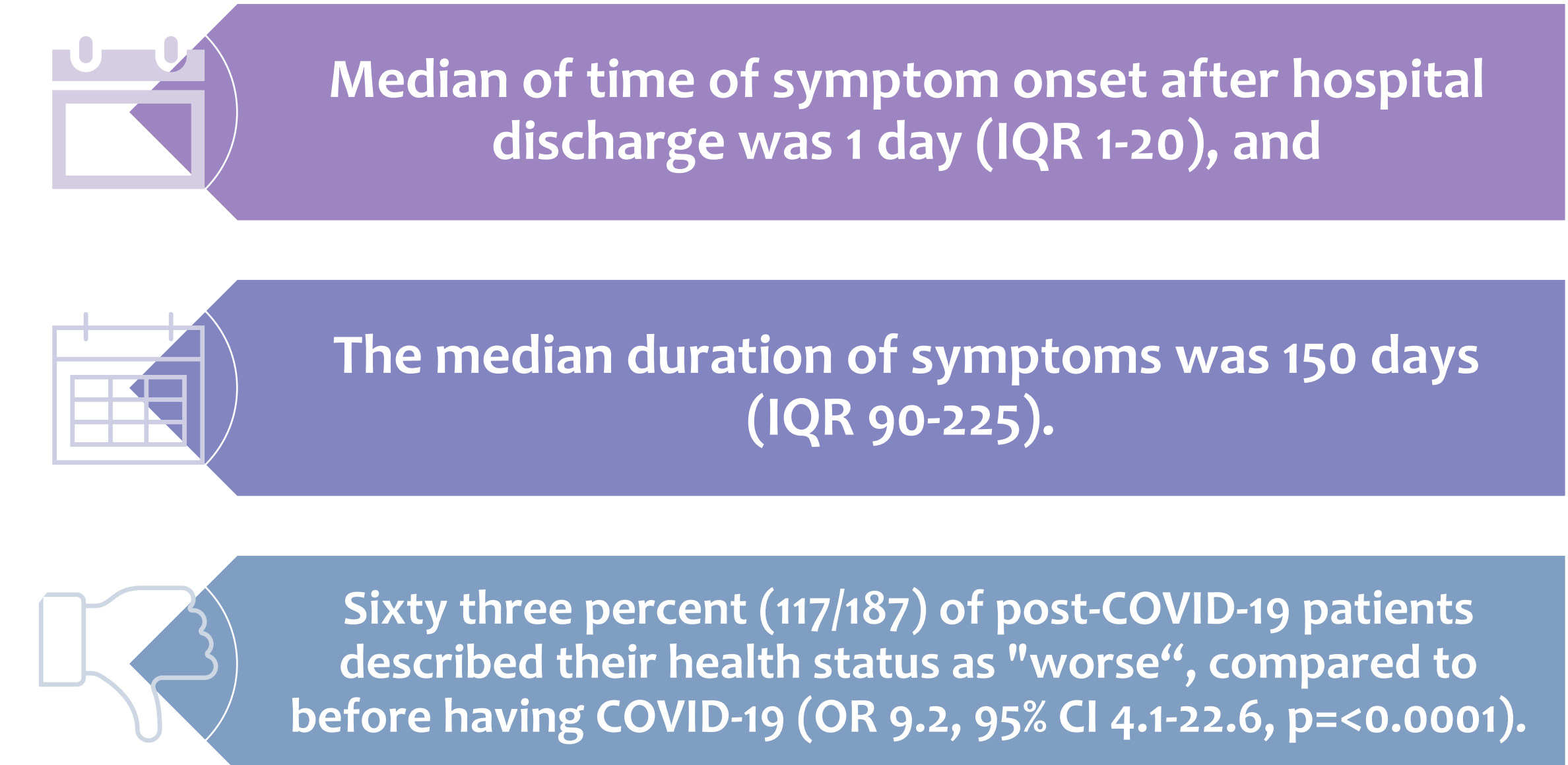
Table 1 Demographic and clinical characteristics of the initial COVID-19 episode among patients with and without post-COVID-19 syndrome.

Characteristics	General N=246 (100%)	Post-COVID-19 syndrome N= 187(76%)	Without Post-COVID-19 syndrome N= 59 (24%)	p bivariate
Male sex	135 (54.87)	101 (54)	34	0.626
Age, median (IQR)	52.5 (41-64)	55 (41-63)	50 (39-769)	0.55
Obesity	106 (43)	86 (45.9)	20 (33.8)	0.10
Overweight	93(37.8)	66 (35.2)	27 (45)	0.14
BMI (kg/m2), median(IQR)	29.09 (25.9-33.7)	29.41 (26.1-34.6)	27.74 (25.3-32.3)	0.05
Hypertension	82 (33.33)	61 (32.6)	21 (35.5)	0.67
Type 2 Diabetes	56 (22.7)	42 (22.4)	14 (23.7)	0.83
Immunosuppression	23 (9.3)	15 (8)	8 (13.5)	0.20
Rheumatic disease	16 (6.5)	13 (6.9)	3 (5)	0.61
Asthma	7 (2.8)	6 (3.2)	1 (1.6)	0.54
Smoking	41 (16.6)	37 (19.7)	4 (6.7)	0.02
COVID-19 Vaccination	23 (9.3)	18 (9.6)	5 (8.4)	0.79
Severe grade in chest CT	174(71)	140(75)	34(58)	0.01
Invasive mechanical ventilation	73 (30)	59 (32)	14 (24)	0.25
Steroid for COVID-19	239 (97)	183 (98)	56 (95)	0.23
Antiviral for COVID-19	45(18)	29(15.5)	16(27)	0.04
Hospital long stay	10(6-20)	10 (6-21)	9(5-19)	0.20
Lymphopenia	176(71.5)	131(70)	45(76)	0.35
D dimer,median(IQR)	699 (446-1191)	704.5 (438-1168)	682 (523-1245)	0.33
Ferritin,median(IQR)	566.05 (260.95-1060.1)	592.75 (280.8-1088)	519.8 (192-879)	0.15
PaO ₂ /FiO ₂ ratio	164.75 (92.13-251)	155.315 (92.44-251)	177.81 (89.11-252.38)	0.90
CPK,median(IQR)	84 (43.5-161)	79 (37-159)	101 (54-190)	0.11
LDH,median(IQR)	329 (262-437)	327 (262-438)	333.5 (265-420.5)	0.97
Fibrinogen,median(IQR)	614 (462-767)	635 (479-776)	490.5 (429-710)	0.006

Figure 1. Frequency of post-COVID-19 syndrome symptoms reported by patients.



Conclusions: There was a high prevalence of post-COVID-19 syndrome in our cohort. This was more frequent in those with higher BMI, smokers, and those with elevated fibrinogen levels. Interestingly, it was less frequently seen in those who received antivirals as COVID-19 treatment. We found a significant QoL impairment associated with post-COVID-19.



Evaluation of QoL: Patients with post-COVID-19 syndrome reported a worse QoL in the general analog visual scale, compared to those who did not meet the definition of post-COVID-19 syndrome [80 mm (IQR 70-90) vs 89.5 mm (75-90), p=0.05]. Figure 2 shows the distribution of the EQ-5D dimensions affected (some problems/unable) in both groups.

Figure 2. Distribution and comparison the EQ-5D dimensions (some problems/unable) in patients with and without post-COVID-19 syndrome.

