

Cardiac Troponin Values in Patients With Acute Coronary Syndrome and Sleep Apnea

A Pilot Study

Alicia Sánchez-de-la-Torre, PhD; Xavier Soler, MD, PhD; Ferran Barbé, MD, PhD; Marina Florés, MD; Alan Maisel, MD, PhD; Atul Malhotra, MD, PhD; Montserrat Rue, PhD; Sandra Bertran, MSc; Albina Aldomá, MD; Fernando Worner, MD, PhD; Joan Valls, PhD; Chi-Hang Lee, MD, PhD; Cecilia Turino, MD; Estefanía Galera, MD; Jordi de Batlle, PhD; Manuel Sánchez-de-la-Torre, PhD; on behalf of the Spanish Sleep Network

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e-Appendix 1.

1. e-Results

1.1 Anthropometric, clinical, and treatment characteristics of patients with non-OSA, low-to-moderate-severity OSA and high-severity OSA (OSA severity considered based on observed AHI median values).

To further investigate the strength of the impact of OSA severity-related variables on the time course of cTn expression, we classified the OSA patients into two groups according to the observed AHI median value (median AHI for OSA patients=32 events·h⁻¹). We differentiated between OSA patients with low-to-moderate-severity AHI (AHI 15-32 events·h⁻¹) and OSA patients with high-severity AHI (AHI>32 events·h⁻¹).

e-Table 1. Anthropometric, clinical, and treatment characteristics of patients with non-obstructive sleep apnea, low-to-moderate-severity obstructive sleep apnea and high-severity obstructive sleep apnea.

	Group			p-value
	Non-OSA (AHI<15) (n=38)	OSA (AHI 15-32) (n=45)	OSA (AHI>32) (n=44)	
Age, years, mean (SD)	64.4 (13.1)	62.8 (11.6)	64.5 (11.5)	0.757
Gender, n (%)				0.96
Male	32 (84.2%)	37 (82.2%)	36 (81.8%)	
Female	6 (15.8%)	8 (17.8%)	8 (18.2%)	
Apnea-hypopnea index events·h ⁻¹ , median [IQR]	4.8 [1.6;9.6]	20.8 [17.8;26.0]	47.0 [39.7;55.1]	<0.0001
Oxygen desaturation index >4% h ⁻¹ , median [IQR]	4.6 [3.5;10.1]	15.1 [7.8;24.5]	32.2 [6.4;44.2]	<0.001
Minimum SaO ₂ , %, median [IQR]	87.0 [84.0;89.0]	84.0 [81.0;87.0]	82.0 [75.5;86.5]	0.005
Mean SaO ₂ , %, median [IQR]	93.3 [92.1;94.1]	93.1 [91.9;94.2]	92.6 [91.7;94.1]	0.868
Time with SaO ₂ <90%, %, median [IQR]	1.6 [0.2;10.0]	3.8 [0.7;12.6]	8.9 [1.4;15.9]	0.237
Epworth Sleepiness Scale, median [IQR]	3.0 [3.0;4.2]	5.0 [3.0;6.0]	4.0 [3.0;6.5]	0.053
Hypertensive patients, n (%)	24 (63.2%)	27 (60.0%)	34 (77.3%)	0.188
Body mass index, kg·m ⁻² , median [IQR]	26.4 [24.6;30.0]	27.6 [25.2;31.0]	27.7 [24.9;29.5]	0.579
Neck circumference, cm, n (%)	42.0 [39.5;43.5]	40.0 [39.0;42.0]	41.0 [40.0;42.0]	0.443
Diabetes mellitus, n (%)	10 (26.3%)	14 (31.1%)	19 (44.2%)	0.21
Dyslipidemia, n (%)	18 (47.4%)	27 (60.0%)	26 (59.1%)	0.447
Peak cTn-I, ng·ml ⁻¹	10.7 [1.8;40.1]	5.2 [0.9;24.3]	2.4 [0.2;20.0]	0.058
Area under the peak cTn-I	451 [79.8;1533]	183 [47.8;741]	113 [7.06;855]	0.08
Type of ACS, n (%)				
Unstable angina	4 (10.5%)	3 (6.67%)	6 (13.6%)	0.510
Non-STEMI	15 (39.5%)	23 (51.1%)	24 (54.5%)	
STEMI	19 (50.0%)	19 (42.2%)	14 (31.8%)	
First episode of ACS, n (%)	28 (73.7%)	36 (80.0%)	34 (77.3%)	0.8
Cardiomyopathy, n (%)	11 (28.9%)	13 (28.9%)	15 (34.9%)	0.79
Stroke, n (%)	1 (2.7%)	3 (6.7%)	0 (0%)	0.21
Killip class, median [IQR]	1.0 [1.0;1.0]	1.0 [1.0;3.0]	1.0 [1.0;2.0]	0.93
Number of affected vessels, median [IQR]	1.0 [1.0;2.0]	1.0 [1.0;3.0]	2.0 [1.0;2.0]	0.845
Number of stents, median [IQR]	1.0 [0.0;1.0]	1.0 [1.0;2.0]	1.0 [1.0;2.0]	0.03
Location of intervened lesions				0.45
No lesion	3 (9.68%)	3 (7.50%)	5 (13.9%)	
Proximal	9 (29.0%)	20 (50.0%)	14 (38.9%)	
Medial	16 (51.6%)	13 (32.5%)	11 (30.6%)	
Distal	3 (9.68%)	4 (10.0%)	6 (16.7%)	

Smoker, n (%)				0.36
Former smoker	11 (28.9%)	8 (17.8%)	16 (36.4%)	
No	13 (34.2%)	15 (33.3%)	13 (29.5%)	
Yes	14 (36.8%)	22 (48.9%)	15 (34.1%)	
Total tobacco exposure, pack-years, median [IQR]	20.0 [15.0;30.0]	29.5 [20.0;46.5]	22.5 [7.75;36.2]	0.3
Alcohol use, n (%)				0.77
Former alcohol consumption	2 (6.5%)	0 (0%)	1 (3.6%)	
No	24 (77.4%)	31 (86.1%)	23 (82.1%)	
Yes	5 (16.1%)	5 (13.9%)	4 (14.3%)	
Diuretics, n (%)	17 (44.7%)	10 (22.7%)	16 (37.2%)	0.1
Anticoagulants, n (%)	6 (15.8%)	6 (13.6%)	10 (23.8%)	0.435
Antacids, n (%)	11 (28.9%)	17 (38.6%)	18 (42.9%)	0.422
Hypolipidemics, n (%)	12 (31.6%)	18 (40.9%)	18 (41.9%)	0.582
β-blockers, n (%)	17 (44.7%)	14 (31.8%)	19 (44.2%)	0.387
Antiplatelet agents, n (%)	6 (15.8%)	8 (18.2%)	7 (16.7%)	0.958
Bronchodilators, n (%)	3 (7.9%)	4 (9.1%)	1 (2.4%)	0.432
Oral antidiabetic drugs, n (%)	7 (18.4%)	10 (22.7%)	16 (37.2%)	0.126
Insulin, n (%)	1 (2.6%)	4 (9.1%)	6 (14.6%)	0.195
Calcium antagonists, n (%)	2 (5.3%)	10 (22.7%)	10 (23.3%)	0.06

cTn-I, cardiac troponin-IM; IQR, interquartile range; AHI, apnea-hypopnea index (number of events·h⁻¹).