

LATENCY TO N3 INTERRUPTION IN AROUSAL DISORDERS

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Supplementary Table S1. Polysomnography measures in participants with classical disorders of arousal (nsDOA) and with sexsomnia.

Group	All patients	nsDOA	Sexsomnia	P
Night 1, N	163	117	46	
Total sleep time, min	468.8 ± 92.8	457.5 ± 93.2	497.6 ± 86.0*	0.01
Wake after sleep onset, min	67.5 ± 53.4	67.9 ± 56.3	66.5 ± 45.4	0.86
Sleep efficiency (%)	88.3 ± 9.5	88.0 ± 10.1	89.2 ± 7.7	0.40
Latency to, min				
Sleep onset	28.7 ± 27.2	29.5 ± 25.6	26.8 ± 31.3	0.60
N3 sleep	24.0 ± 25.7	23.1 ± 25.1	26.1 ± 27.2	0.52
REM sleep	121.8 ± 64.2	122.9 ± 66.6	119.1 ± 58.4	0.71
Sleep stages, % of total sleep time				
N1	3.3 ± 3.1	3.1 ± 2.8	3.8 ± 3.6	0.21
N2	50.4 ± 8.5	50.6 ± 8.4	49.9 ± 8.9	0.64
N3	24.8 ± 8.0	25.1 ± 8.1	24.2 ± 7.8	0.52
R	21.5 ± 5.9	21.2 ± 6.0	22.1 ± 5.7	0.40
Sleep fragmentation, index as N of events/h of sleep				
Arousals	8.8 ± 5.7	8.6 ± 5.3	9.5 ± 6.6	0.38
Apnea/hyponea	2.5 ± 3.1	2.4 ± 3.1	3.0 ± 3.0	0.27
Periodic leg movements	3.4 ± 5.8	3.4 ± 6.2	3.5 ± 4.7	0.85
Night #2, N	145	100	45	
Total sleep time, min	456.1 ± 71.6	459.3 ± 75.8	448.8 ± 61.4	0.37
Wake after sleep onset, min	60.1 ± 45.4	59.6 ± 44.4	61.2 ± 48.3	0.84
Sleep efficiency (%)	89.7 ± 8.4	89.9 ± 8.5	89.4 ± 8.4	0.74
Latency to, min				
Sleep onset	30.8 ± 26.9	31.2 ± 28.4	29.9 ± 23.6	0.78
N3 sleep	21.3 ± 21.3	22.7 ± 23.5	18.2 ± 15.2	0.16
REM sleep	105.5 ± 58.9	109.3 ± 62.0	97.1 ± 51.0	0.21
Sleep stages, % of total sleep time				
N1	2.9 ± 2.4	2.7 ± 2.4	3.3 ± 2.4	0.14
N2	48.4 ± 8.6	48.8 ± 8.8	47.5 ± 8.1	0.37
N3	25.4 ± 8.1	24.9 ± 8.4	26.5 ± 7.1	0.23
R	23.3 ± 5.7	23.6 ± 5.7	22.7 ± 5.5	0.36
Sleep fragmentation, index as N of events/h of sleep				
Arousals	8.8 ± 6.2	8.6 ± 6.0	9.3 ± 6.6	0.53
Apnea/hypopnea	2.0 ± 2.6	1.8 ± 2.7	2.3 ± 2.4	0.29
Periodic leg movements	2.8 ± 6.3	2.7 ± 6.8	3.2 ± 5.2	0.66

Measures expressed as mean ± SD. * Significant between group difference.

Supplementary Table S2. Comparison of latencies between Night#1 and Night#2, in participants with classical disorders of arousal (nsDOA) and with sexsomnia.

	Night#1	Night#2	P
	Median (Q1-Q3)	Median (Q1-Q3)	
Patients with nsDOA			
Latency to first N3 interruption, min			
From Light Off	59.0 (42.0 – 80.0)	58.3 (39.3 – 77.6)	0.48
From sleep onset	31.0 (21.5 – 44.0)	26.0 (19.5 – 45.0)	0.29
From N3 onset	9.5 (4.5 – 19.0)	8.0 (4.0 – 15.5)	0.25
Latency to first complex N3 interruption, min			
From Light Off	101.5 (56.8 – 170.9)	90.3 (66.9 – 160.8)	0.77
From sleep onset	56.0 (31.9 – 130.1)	57.0 (38.9 – 126.5)	0.30
From N3 onset	41.3 (14.4 – 105.1)	35.0 (18.3 – 88.3)	0.29
Latency to last N3 interruption, min			
From Light off	445.0 (365.5 – 510.0)	462.0 (386.0 – 517.4)	0.35
From sleep onset	413.0 (325.5 – 477.0)	424.5 (349.5 – 480.6)	0.52
Patients with sexsomnia			
Latency to first N3 interruption, min			
From Light Off	60.3 (39.1 – 74.1)	56.0 (36.5 – 85.5)	0.43
From sleep onset	33.0 (22.6 – 55.9)	27.0 (19.5 – 47.5)	0.052
From N3 onset	11.3 (5.1 – 24.9)	10.0 (4.0 – 23.0)	0.56
Latency to first complex N3 interruption, min			
From Light Off	138.8 (51.0 – 174.9)	91.5 (67.3 – 153.5)	0.51
From sleep onset	73.5 (44.9 – 133.8)	64.0 (47.8 – 93.5)	0.86
From N3 onset	35.5 (16.8 – 94.9)	40.0 (27.0 – 81.5)	0.98
Latency to last N3 interruption, min			
From Light off	419.5 (361.8 – 496.1)	418.0 (355.5 – 491.5)	0.83
From sleep onset	399.0 (329.3 – 458.8)	387.5 (319.0 – 454.0)	0.65

Q1: first quartile, Q3: third quartile

Supplementary Table S3. Influence of binary factors on latency from sleep onset to N3 interruptions

	Night#1 First N3 interruption		Night#1 first N3 interruption with complex behavior		Night#2 first N3 interruption		Night#2 first N3 interruption with complex behavior	
	F	P	F	P	F	P	F	P
Sex	3.62	0.06	1.93	0.16	0.04	0.84	0.39	0.53
History of DOA	1.58	0.20	2.08	0.11	0.76	0.51	0.42	0.74
Childhood onset	1.12	0.33	1.20	0.30	3.41	0.046*	0.34	0.71
Clinical characteristics								
Somnambulism	0.46	0.50	1.52	0.22	3.77	0.05	1.53	0.22
Sleep terror	1.30	0.25	2.06	0.15	0.17	0.73	0.03	0.87
Confusional arousal	2.53	0.11	0.02	0.89	0.69	0.41	0.01	0.91
Sexsomnia	0.0	0.99	0.05	0.82	1.11	0.29	0.39	0.53
Harm himself/others	0.71	0.40	9.64	0.002	2.06	0.15	1.23	0.27
Comorbidities								
Neurological	0.17	0.91	0.30	0.82	0.53	0.59	0.76	0.47
Anxiety/depression	0.53	0.47	0.13	0.72	0.48	0.49	2.30	1.32
ADHD	0.08	0.78	0.0	0.96	0.02	0.90	2.50	0.12
Psychotropic drugs	0.14	0.71	7.36	0.007	0.81	0.37	0.34	0.56

*nonsignificant in post-hoc analysis; Multiple-way ANOVA

