

Supplemental Table S1. Baseline Characteristics according to the Presence of Moderate-to-Severe OSA (REI \geq 15/hour)

Characteristic	All patients (n=35)	Patients with OSA (REI \geq 15/hr) (n=15)	Patients without OSA (REI < 15/hr) (n=20)	P value
Age at enrolment, yr	47.0 (36.0–53.0)	53.0 (46.0–56.0)	42.0 (31.0–50.0)	0.017
Male sex	14 (40.0)	6 (40.0)	8 (40.0)	>0.999
Never smoker	23 (65.7)	9 (60.0)	14 (70.0)	0.797
Weight, kg	68.5 (59.5–79.6)	66.2 (59.1–78.8)	71.1 (59.5–82.5)	0.617
BMI, kg/m ²	24.4 (22.4–26.1)	24.9 (23.5–25.9)	23.4 (21.9–26.9)	0.351
Neck circumference, cm	37.5 (34.0–40.5)	36.5 (34.0–40.2)	38.5 (33.5–40.8)	0.867
Friedman tongue position				0.299
Grade I	3 (8.6)	0	3 (15.0)	
Grade II	2 (5.7)	0	2 (10.0)	
Grade III	11 (31.4)	5 (33.3)	6 (30.0)	
Grade IV	19 (54.3)	10 (66.7)	9 (45.0)	
Friedman tonsil size				0.134
1	25 (71.4)	13 (86.7)	12 (60.0)	
2	10 (28.6)	2 (13.3)	8 (40.0)	
Symptoms of OSA				
Habitual snoring	33 (94.3)	15 (100.0)	18 (90.0)	0.496
Witnessed apnea	16 (45.7)	8 (53.3)	8 (40.0)	0.659
Excessive daytime sleepiness	22 (62.9)	11 (73.3)	11 (55.0)	0.449
Non-restorative sleep	26 (74.3)	11 (73.3)	15 (75.0)	>0.999
Fatigue	25 (71.4)	11 (73.3)	14 (70.0)	>0.999
Insomnia symptoms	9 (25.7)	4 (26.7)	5 (25.0)	>0.999
STOP-Bang questionnaire	3 (3–5)	5.0 (3.0–5.0)	3.0 (2.0–4.0)	0.039
Epworth Sleepiness Scale	8 (4–10)	6 (4–10)	8 (4–10)	0.788
Comorbidities				
Diabetes mellitus	7 (20.0)	2 (13.3)	5 (25.0)	0.672
Hypertension	10 (28.6)	6 (40.0)	4 (20.0)	0.266
Dyslipidemia	5 (14.3)	2 (13.3)	3 (15.0)	>0.999
Cardiovascular disease	1 (2.9)	1 (6.7)	0	0.429
Stroke	2 (5.7)	1 (6.7)	1 (5.0)	>0.999
Osteoporosis	4 (11.4)	1 (6.7)	3 (15.0)	0.619
Cancer	7 (20.0)	3 (20.0)	4 (20.0)	>0.999
Arthralgia	6 (17.1)	3 (20.0)	3 (15.0)	>0.999
Carpal tunnel syndrome	3 (8.6)	2 (13.3)	1 (5.0)	0.565
Tumor characteristics				
Maximal tumor size, cm	2.0 (1.3–2.5)	1.8 (1.3–2.3)	2.0 (1.3–2.6)	0.705
Macroadenoma (\geq 1 cm)	31 (88.6)	14 (93.3)	17 (85.0)	0.619
Cavernous sinus invasion	11 (31.4)	4 (26.7)	7 (35.0)	0.721
Optic chiasm compression	5 (14.3)	1 (6.7)	4 (20.0)	0.365

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Supplemental Table S1. Continued

Characteristic	All patients (n=35)	Patients with OSA (REI ≥15/hr) (n=15)	Patients without OSA (REI <15/hr) (n=20)	P value
Hormone and metabolic parameters				
GH, ng/mL	14.3 (5.1–28.0)	16.2 (6.1–32.8)	12.9 (4.5–26.0)	0.202
Nadir GH during OGTT, ng/mL	6.0 (3.6–22.1)	6.0 (4.2–12.5)	6.6 (2.5–25.7)	0.960
IGF-1, ng/mL	615.0 (492.0–792.0)	677.0 (530.0–856.5)	568.0 (466.0–657.0)	0.131
IGF-1, ×ULN	2.0 (1.5–2.4)	2.3 (2.0–2.7)	1.5 (1.3–2.3)	0.003
Prolactin, ng/mL	7.1 (5.2–21.5)	6.2 (4.1–11.0)	8.6 (6.2–27.5)	0.110
ACTH deficiency	1 (2.9)	1 (6.7)	0	0.429
TSH deficiency	2 (5.7)	0	2 (10.0)	0.496
Gonadotropin deficiency	11 (31.4)	2 (13.3)	9 (45.0)	0.069
Fasting plasma glucose, mg/dL	103.0 (94.5–111.0)	100.0 (96.0–123.0)	104.0 (92.0–110.5)	0.515
2-hour postprandial plasma glucose, mg/dL	138.0 (110.5–199.0)	177.0 (114.0–230.5)	136.5 (109.0–174.0)	0.405
HbA1c, %	6.1 (5.6–6.4)	6.1 (5.6–6.4)	6.0 (5.6–6.5)	0.776
Parameters of respiratory polygraphy				
REI, /hr	12.2 (4.3–25.6)	26.8 (21.4–29.9)	4.6 (3.3–10.7)	<0.001
Supine REI, /hr	18.7 (9.9–36.0)	38.0 (29.8–52.8)	10.7 (6.0–16.1)	<0.001
Non-supine REI, /hr	2.0 (0.5–9.3)	9.7 (2.4–21.2)	1.1 (0.3–2.4)	0.009
Mean apnea duration, sec	20.6 (15.4–24.5)	22.8 (21.5–30.6)	16.5 (13.6–20.6)	0.001
Longest apnea duration, sec	34.1 (24.3–45.7)	48.1 (36.5–57.7)	26.5 (17.4–33.1)	<0.001
Mean SpO ₂ , %	94.8 (93.8–95.7)	94.7 (92.8–95.3)	95.2 (94.0–96.2)	0.089
Lowest SpO ₂ , %	85.0 (80.5–89.0)	79.0 (69.5–84.5)	87.5 (84.5–89.0)	0.001
TS90, min	2.3 (0.2–12.5)	18.6 (5.8–45.0)	0.2 (0.1–2.2)	<0.001
TS90, %	0.5 (0.0–3.0)	3.8 (1.2–11.2)	0.1 (0.0–0.5)	<0.001
ODI, /hr	13.0 (4.9–25.1)	27.4 (23.5–32.0)	5.7 (3.8–11.2)	<0.001
Supine ODI, /hr	17.2 (11.0–37.7)	38.5 (32.2–55.2)	11.2 (5.7–17.3)	<0.001
Non-supine ODI, /hr	4.1 (1.0–13.5)	12.0 (3.1–20.8)	2.8 (0.8–5.1)	0.017

Values are expressed as median (interquartile range) or number (%).

OSA, obstructive sleep apnea; REI, respiratory event index; BMI, body mass index; STOP-Bang, Snoring, Tiredness, Observed apnea, high blood Pressure-Body mass index, Age, Neck circumference, and Gender; GH, growth hormone; OGTT, oral glucose tolerance test; IGF-1, insulin-like growth factor 1; ULN, upper limit of normal; ACTH, adrenocorticotropic hormone; TSH, thyroid-stimulating hormone; HbA1c, glycated hemoglobin; SpO₂, oxygen saturation; TS90, sleep time spent with oxygen saturation <90%; ODI, oxygen desaturation index.