

Supplementary Table 1 with effect sizes. In-laboratory polysomnogram findings; stimulation vs sham

Measurements	tACS N=9	Sham N=9	Difference	Difference (Adjusted for Sequence and Period)
	Mean (SD)	Mean (SD)	Mean (SE) (Effect size)	95% CI (p-val)
SOL	22.2 (25.8)	39.9 (56.3)	-17.8 (20.6) (0.41)	-17.4 (-44.4 to 9.6) (0.21)
WASO	77.2 (53.2)	89.1 (81.9)	-11.8 (32.6) (0.17)	-17.0 (-60.9 to 26.9) (0.45)
Sleep Efficiency	81.5 (10.6)	75.8 (19.5)	5.7 (7.4) (0.36)	6.6 (-4.6 to 17.7) (0.25)
ESS	7.0 (5.5)	5.9 (5.2)	1.1 (2.5) (0.21)	1.2 (0.2 to 2.1) (0.02) *
Resp. Arousal Index	6.9 (4.3)	7.8 (4.4)	-0.9 (2.0) (0.21)	-0.8 (-2.0 to 0.4) (0.19)
Spon. Arousal Index	7.1 (2.6)	8.6 (3.0)	-1.5 (1.3) (0.54)	-1.6 (-3.2 to -0.1) (0.04) *
Total Arousal index	14.0 (3.5)	16.3 (4.4)	-2.4 (1.9) (0.60)	-2.4 (-4.4 to -0.4) (0.02) *
%N1	6.4 (3.5)	8.4 (4.1)	-2.0 (1.8) (0.52)	-2.2 (-5.1 to 0.8) (0.15)
%N2	66.7 (7.2)	67.9 (7.6)	-1.1 (3.5) (0.15)	-0.9 (-4.3 to 2.5) (0.60)
%N3	6.0 (4.7)	6.7 (5.7)	-0.7 (2.5) (0.13)	-0.9 (-3.6 to 1.7) (0.49)
REM	20.8 (5.0)	17.1 (7.8)	3.7 (3.1) (0.56)	3.9 (-0.6 to 8.4) (0.09)
N2 Latency	26.4 (26.1)	52.8 (62.5)	-26.3 (22.6) (0.55)	-25.1(-54.6 to 4.4) (0.10)
N3 Latency	87.7 (84.4)	39.9 (30.6)	47.8 (29.9) (0.75)	45.6 (-5.9 to 97.1) (0.08)
REM Latency	106.9 (57.2)	104.3 (48.0)	2.7 (24.9) (0.05)	-1.9 (-29.1 to 25.3) (0.89)
Average O2 sat	96.1 (1.5)	95.7 (1.9)	0.4 (0.8) (0.27)	0.45 (-0.5 to 1.4) (0.37)
Average AHI	6.9 (4.2)	7.8 (4.4)	-0.9 (2.0) (0.21)	-0.8 (-2.1 to 0.4) (0.18)
NREM AHI	5.2 (3.7)	6.3 (4.6)	-1.1 (2.0) (0.26)	-1.0 (-2.6 to 0.5) (0.19)
PLMI	0.4 (1.3)	0.8 (2.4)	-0.4 (0.9) (0.19)	-0.4 (-1.1 to 0.2) (0.20)

Supplementary Table 1 with effect size

Entries are based on the mixed model and t-test results provided in the Stata Output for Lab data). * Statistically significant difference. SOL = sleep onset latency; WASO = wake after sleep onset; min. = minute; Resp. = respiratory; Spon. = spontaneous; N1-3 = stages N1-3 sleep; REM = rapid eye movement (sleep); O2 sat. = oxygen saturation; AHI = apnea/hypopnea index; PLMI = periodic limb movement index; ESS = Epworth sleepiness scale; Effect size < 0.30 = small effect, 0.30-0.60 = moderate effect; and > 0.60 = large effect
Effect size represents Cohen's d for the difference between the 2 groups