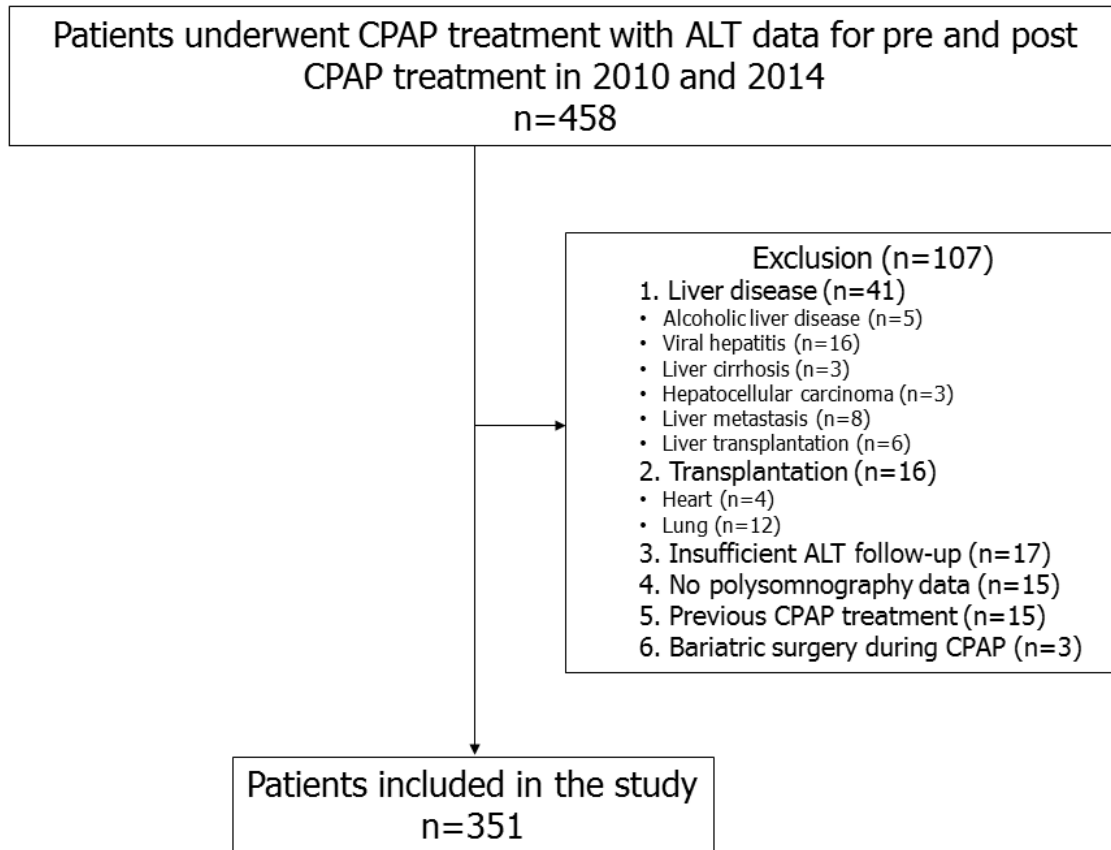


Figure S1



**Table S1.** Baseline Characteristics of the Study Population according to Adherence

	Total population (n=351)	Poor adherence (n=106)	Partial adherence (n=99)	Good adherence (n=146)	P value
Age (year)	57.6 ± 14.8	56.3 ± 14.0	58.5 ± 15.2	58.0 ± 15.1	0.507
Male (%)	208 (59.3)	60 (56.6)	55 (55.6)	93 (63.7)	0.356
Body mass index	32.2 ± 8.0	32.4 ± 8.3	31.3 ± 9.5	32.8 ± 8.9	0.425
Ethnicity					0.719
White	194 (55.4)	61 (57.5)	54 (54.5)	79 (54.1)	
African-Americans	28 (8.0)	12 (11.3)	6 (6.1)	10 (6.8)	
Asians	65 (18.5)	16 (15.1)	20 (20.2)	29 (19.9)	
Hispanics	64 (18.2)	17 (16.0)	19 (19.2)	28 (19.2)	
AHI	37.21 ± 27.02	34.2 ± 24.4	33.6 ± 27.0	41.8 ± 28.3	0.025
ODI	24.48 ± 26.20	22.5 ± 25.0	23.1 ± 27.4	26.9 ± 26.2	0.375
MOS	83.5 ± 7.9	83.9 ± 8.8	84.3 ± 7.3	82.6 ± 7.6	0.234
Diabetes	108 (30.8)	40 (37.7)	31 (31.3)	37 (25.3)	0.108
Glucose	117.5 ± 43.9	120.6 ± 51.5	116.1 ± 39.7	117.1 ± 39.4	0.744
Albumin	3.78 ± 0.42	3.68 ± 0.44	3.77 ± 0.43	3.86 ± 0.37	0.003
AST	28.0 ± 15.8	25.0 ± 9.8	28.8 ± 19.6	29.6 ± 16.2	0.071
ALT	44.5 ± 22.3	38.9 ± 13.4	43.9 ± 22.7	49.0 ± 26.2	0.002
Platelet	224.7 ± 69.0	227.2 ± 65.3	227.5 ± 76.1	220.9 ± 66.9	0.725
APRI	0.35 ± 0.26	0.30 ± 0.18	0.38 ± 0.34	0.37 ± 0.24	0.119
sNAFLD	313 (89.4)	94 (88.7)	84 (84.8)	136 (93.2)	0.110
Fibrosis (by APRI)					
No fibrosis	225 (84.9)	70 (89.7)	59 (83.1)	96 (82.8)	0.637
Intermediate	25 (9.4)	6 (7.7)	7 (9.9)	12 (10.3)	
Advanced	15 (5.7)	2 (2.6)	5 (7.0)	8 (6.9)	

Data are shown as the mean ± SD and number (proportion).

OSA, obstructive sleep apnea; AHI, apnea-hypopnea index; ODI, oxygen desaturation index (the number of times per hour of sleep that the blood's oxygen level drops by 3 percent or more from baseline); MOS, minimum oxygen saturation; AST, aspartate aminotransferase; ALT, alanine aminotransferase; APRI, AST to platelet ratio index; sNAFLD, *suspected* nonalcoholic fatty liver disease.

**Table S2.** Changes in Laboratory Data and Fibrosis Index following CPAP Treatment According to the Severity of OSA

	Post CPAP	Pre CPAP	Difference	95% CI of difference	P value
Mild OSA (n=73)					
ALT (n=73)	38.0 ± 14.3	40.3 ± 14.7	-2.21	-5.04 ~ 0.63	0.126
AST (n=70)	23.8 ± 7.3	25.1 ± 9.6	-1.31	-3.27 ~ 0.65	0.186
Platelet (n=53)	235.4 ± 104.3	219.7 ± 67.0	15.64	-2.75 ~ 34.03	0.094
Albumin (n=67)	3.83 ± 0.41	3.79 ± 0.44	0.03	-0.06 ~ 0.13	0.488
Glucose (n=64)	107.0 ± 27.6	110.8 ± 33.9	-3.78	-12.18 ~ 4.62	0.372
APRI (n=52)	0.29 ± 0.16	0.31 ± 0.21	-0.02	-0.05 ~ 0.00	0.096
Moderate OSA (n=102)					
ALT (n=102)	39.4 ± 14.1	43.8 ± 17.9	-4.39	-7.37 ~ -1.42	0.004
AST (n=90)	25.8 ± 8.8	28.5 ± 12.9	-2.70	-5.15 ~ -0.26	0.031
Platelet (n=66)	233.3 ± 65.2	229.6 ± 63.9	3.71	-6.23 ~ 13.66	0.459
Albumin (n=87)	3.84 ± 0.36	3.82 ± 0.48	0.02	-0.08 ~ 0.12	0.661
Glucose (n=80)	104.1 ± 23.2	110.0 ± 32.5	-5.8	-12.48 ~ 0.71	0.079
APRI (n=65)	0.30 ± 0.19	0.33 ± 0.20	-0.03	-0.07 ~ 0.00	0.072
Severe OSA (n=176)					
ALT (n=176)	39.3 ± 17.8	46.7 ± 26.7	-7.44	-11.17 ~ -3.71	<0.001
AST (n=170)	24.8 ± 10.9	28.8 ± 19.0	-3.95	-6.72 ~ -1.18	0.005
Platelet (n=136)	216.9 ± 74.0	224.6 ± 75.0	-7.67	-17.14 ~ 1.80	0.112
Albumin (n=164)	3.72 ± 0.45	3.73 ± 0.44	-0.02	-0.08 ~ 0.04	0.514
Glucose (n=156)	126.2 ± 51.8	124.4 ± 52.7	1.81	-6.70 ~ 10.32	0.675
APRI (n=134)	0.32 ± 0.19	0.38 ± 0.31	-0.06	-0.11 ~ -0.004	0.034

Data are shown as the mean ± SD. Difference was calculated by subtracting the value after CPAP treatment from the value before CPAP treatment.

CPAP, continuous positive airway pressure; OSA, obstructive sleep disorder; CI confidence interval; ALT, alanine aminotransferase; AST, aspartate aminotransferase; APRI, AST to platelet ratio index.

**Table S3.** Changes in Laboratory Data and Fibrosis Index Following CPAP treatment According to the CPAP Adherence

	Post CPAP	Pre CPAP	Difference	95% CI of difference	P value
Poor adherence (n=106)					
ALT (n=106)	43.3 ± 18.1	38.9 ± 13.4	4.42	1.72 ~ 7.11	0.002
AST (n=100)	25.4 ± 9.8	24.9 ± 9.7	0.54	-1.36 ~ 2.44	0.575
Platelet (n=72)	239.5 ± 103.6	228.3 ± 70.5	11.19	-5.71 ~ 28.10	0.191
Albumin (n=96)	3.75 ± 0.49	3.68 ± 0.45	0.07	-0.02 ~ 0.17	0.143
Glucose (n=92)	121.0 ± 54.0	120.1 ± 52.1	0.85	-9.94 ~ 11.64	0.876
APRI (n=71)	0.29 ± 0.17	0.29 ± 0.18	0.001	-0.03 ~ 0.04	0.947
Partial adherence (n=99)					
ALT (n=99)	37.4 ± 13.8	43.9 ± 22.7	-6.47	-9.87 ~ -3.08	<0.001
AST (n=95)	24.6 ± 8.8	28.8 ± 19.6	-4.21	-7.69 ~ -0.73	0.018
Platelet (n=76)	221.4 ± 70.8	227.1 ± 79.6	-5.66	-18.53 ~ 7.21	0.384
Albumin (n=90)	3.72 ± 0.41	3.77 ± 0.44	-0.05	-0.12 ~ 0.02	0.171
Glucose (n=88)	116.1 ± 37.3	114.8 ± 41.8	1.23	-6.40 ~ 8.86	0.749
APRI (n=74)	0.32 ± 0.20	0.39 ± 0.36	-0.07	-0.14 ~ 0.002	0.051
Good adherence (n=146)					
ALT (n=146)	37.1 ± 15.4	49.0 ± 26.2	-11.96	-15.80 ~ 8.12	<0.001
AST (n=135)	24.7 ± 10.2	29.5 ± 16.4	-4.89	-7.65 ~ -2.13	0.001
Platelet (n=107)	217.8 ± 64.5	221.1 ± 63.7	-3.22	-10.74 ~ 4.30	0.397
Albumin (n=132)	3.82 ± 0.37	3.83 ± 0.45	-0.01	-0.08 ~ 0.06	0.777
Glucose (n=120)	112.6 ± 35.4	117.8 ± 40.7	-5.14	-13.09 ~ 2.81	0.203
APRI (n=106)	0.31 ± 0.18	0.37 ± 0.24	-0.06	-0.10 ~ -0.009	0.019

Data are shown as the mean ± SD. Difference was calculated by subtracting the value after CPAP treatment from the value before CPAP treatment.

CPAP, continuous positive airway pressure; CI confidence interval; ALT, alanine aminotransferase; AST, aspartate aminotransferase; APRI, AST to platelet ratio index.

**Table S4.** Changes in Laboratory Data and Fibrosis Index following CPAP treatment According to the Obesity Status

	Post CPAP	Pre CPAP	Difference	95% CI of difference	P value
<b>Non-obese (n=50)</b>					
ALT (n=50)	36.1 ± 12.7	38.0 ± 11.6	-1.86	-4.43 ~ 0.71	0.153
AST (n=48)	25.6 ± 9.8	29.0 ± 13.1	-3.44	-6.83 ~ -0.05	0.047
Platelet (n=39)	222.6 ± 112.7	212.3 ± 69.1	10.3	-12.69 ~ 33.35	0.369
Albumin (n=46)	3.87 ± 0.53	3.94 ± 0.38	-0.07	-0.19 ~ 0.05	0.261
Glucose (n=45)	102.4 ± 22.5	103.8 ± 29.7	-1.44	-8.06 ~ 5.17	0.662
APRI (n=39)	0.31 ± 0.18	0.37 ± 0.24	-0.06	-0.10 ~ -0.009	0.019
<b>Overweight (n=94)</b>					
ALT (n=94)	37.4 ± 15.0	42.9 ± 27.1	-5.41	-10.45 ~ -0.38	0.035
AST (n=87)	23.9 ± 8.0	27.1 ± 18.2	-3.22	-6.54 ~ 0.10	0.057
Platelet (n=69)	211.5 ± 61.3	217.0 ± 77.7	-5.48	-19.86 ~ 8.90	0.450
Albumin (n=84)	3.76 ± 0.41	3.76 ± 0.44	-0.00	-0.09 ~ 0.08	0.915
Glucose (n=80)	110.1 ± 30.6	112.4 ± 36.9	-2.33	-10.5 ~ 5.85	0.573
APRI (n=69)	0.32 ± 0.17	0.38 ± 0.36	-0.06	-0.14 ~ 0.02	0.129
<b>Obese (n=96)</b>					
ALT (n=96)	41.1 ± 15.4	47.6 ± 22.0	-6.50	-10.9 ~ -2.14	0.004
AST (n=89)	25.4 ± 8.2	28.1 ± 12.9	-2.70	-5.49 ~ 0.10	0.059
Platelet (n=62)	226.3 ± 74.6	225.0 ± 71.2	1.35	-11.3 ~ 14.0	0.832
Albumin (n=88)	3.80 ± 0.40	3.74 ± 0.56	0.06	-0.05 ~ 0.16	0.294
Glucose (n=79)	122.9 ± 52.5	116.3 ± 40.1	6.57	-3.93 ~ 17.07	0.216
APRI (n=61)	0.31 ± 0.17	0.36 ± 0.22	-0.05	-0.10 ~ -0.004	0.035
<b>Severe Obese (n=110)</b>					
ALT (n=110)	40.1 ± 18.5	45.8 ± 20.9	-5.71	-9.19 ~ -2.23	0.002
AST (n=105)	24.6 ± 11.3	27.4 ± 16.6	-2.84	-6.15 ~ 0.48	0.092
Platelet (n=84)	236.5 ± 77.5	237.5 ± 63.6	-0.96	-11.3 ~ 9.35	0.853
Albumin (n=100)	3.71 ± 0.38	3.72 ± 0.36	-0.005	-0.07 ~ 0.06	0.871
Glucose (n=96)	122.3 ± 46.9	129.6 ± 56.3	-7.28	-18.37 ~ 3.82	0.196
APRI (n=81)	0.28 ± 0.18	0.31 ± 0.23	-0.03	-0.08 ~ 0.02	0.266

Data are shown as the mean ± SD. Difference was calculated by subtracting the value after CPAP treatment from the value before CPAP treatment.

CPAP, continuous positive airway pressure; CI confidence interval; ALT, alanine aminotransferase; AST, aspartate aminotransferase; APRI, AST to platelet ratio index.

**Table S5.** Changes in Prevalence of Suspected NAFLD after CPAP Treatment

	Post CPAP (n=351)	Pre CPAP (n=351)	Regressed suspected NAFLD (Normalized ALT)	P value (Regressed)
Total population (n=351)	290 (82.6)	314 (89.5)	36 (10.6)	
				0.305
Mild OSA (n=73)	62 (84.9)	63 (86.3)	4 (5.5)	
Moderate OSA (n=102)	88 (86.3)	96 (94.1)	11 (10.8)	
Severe OSA (n=176)	140 (79.5)	155 (88.1)	21 (11.9)	
				0.014
Poor adherence (n=106)	96 (90.6)	94 (88.7)	4 (3.8)	
Partial adherence (n=99)	79 (79.8)	84 (84.8)	10 (10.1)	
Good adherence (n=146)	115 (78.8)	136 (93.2)	22 (15.1)	
				0.576
Non-obese (n=50)	36 (72.0)	42 (84.0)	7 (14.0)	
Overweight (n=95)	76(80.0)	81 (85.3)	10 (10.5)	
Obese (n=96)	78 (81.3)	86 (89.6)	11 (11.5)	
Severe obese (n=110)	100 (90.9)	105 (95.5)	8 (7.3)	

Data are shown as the number (proportion).

Suspected NAFLD was defined as ALT >31 for men ALT >19 for women.

NAFLD, nonalcoholic fatty liver disease; CPAP, continuous positive airway pressure; OSA, obstructive sleep disorder.