

Table 1

Patient Characteristics

	With sleep disordered breathing	Without sleep disordered breathing	p Value
Demographics			
Number of patients	21 (60%)	14 (40%)	
Age (yrs)	62.0 ± 12.8	50.6 ± 12.7	0.01
Male	15 (71%)	7 (50%)	0.4
Body mass index (kg/m ²)	26.3 ± 4.0	21.2 ± 2.0	0.0003
Number of body mass index >30	4 (19%)	0 (0%)	0.1
Waist circumference (cm)	91.1 ± 11.5	78.2 ± 8.0	0.003
Systolic blood pressure (mmHg)	122.1 ± 11.8	118.4 ± 12.5	0.2
Diastolic blood pressure (mmHg)	69.1 ± 10.1	65.9 ± 10.1	0.2
Heart rate (beats per minutes)	64.0 ± 10.3	69.1 ± 11.2	0.09
Left ventricular ejection fraction (%)	64.0 ± 8.2	63.6 ± 8.0	0.4
Cardiovascular Disease Risk Factors			
Hypertension	6 (29%)	2 (14%)	0.4
Diabetes mellitus	1 (5%)	0 (0%)	1
Hyperlipidemia	2 (10%)	2 (14%)	1
≥20 pack-yr smoking history	10 (48%)	6 (43%)	0.9
Cardiovascular Disease Manifestations			
Myocardial infarction	3 (14%)	2 (14%)	1
Angina	3 (14%)	1 (7%)	0.6
Medications at dismissal			
Amiodarone	4 (19%)	2 (14%)	1
β-Blockers	10 (48%)	4 (29%)	0.3
Disopyramide	0 (0%)	1 (7%)	0.4
Apridine hydrochloride	1 (5%)	0 (0%)	1
Mexiletine hydrochloride	1 (5%)	0 (0%)	1
Sotalol hydrochloride	1 (5%)	0 (0%)	1
Epworth Sleepiness Scale	7.1 ± 3.6	6.0 ± 4.5	0.2

Table 2

Relationship between ventricular arrhythmias and sleep disordered breathing

	With sleep disordered breathing (n=21)	Without sleep disordered breathing (n=14)	p Value
Type of ventricular arrhythmias			
Premature ventricular complexes \geq 300 /h	16 (76%)	10 (71%)	0.9
Couplet	3(10%)	1 (7%)	0.6
Ventricular tachycardia	19 (91%)	14 (100%)	0.5
Day-Night pattern of ventricular arrhythmias			
Day > Night	12 (57%)	7 (50%)	0.7
Day = Night	6 (29%)	5 (36%)	0.7
Day < Night	3 (14%)	2 (14%)	1

Table 3

Polysomnographic characteristics in 30 ventricular arrhythmia patients
with or without sleep disordered breathing

	With sleep disordered breathing (n = 21)	Without sleep disordered breathing (n = 14)
Apnea hypopnea index (n/h)	22.7 \pm 17.9	1.3 \pm 1.0
Central apnea (n/h)	3.3 \pm 6.2	0.3 \pm 0.4
Obstructive apnea (n/h)	7.5 \pm 9.7	0.2 \pm 0.4
arousal index (n/h)	26.8 \pm 12.0	12.3 \pm 6.1
nocturnal SaO ₂	(n = 18)*	(n = 14)
mean SaO ₂ (%)	93.3 \pm 2.9	95.9 \pm 1.8
lowest SaO ₂ (%)	80.6 \pm 8.5	89.4 \pm 3.3
Percent SaO ₂ <90%	9.4 \pm 16.2	0.0 \pm 0.1

*SaO₂ could not be detected 3 patients with SDB because of frequent PVCs with bigemini cycle most of the night. Therefore, these patients were excluded from calculating SaO₂.

Table 4

Demographics, left ventricular ejection fraction and disordered breathing events in ventricular arrhythmia patients with moderate to severe sleep-disordered breathing.

Patient No.	Age (yrs)	sex	Body mass index (kg/m ²)	Left ventricular ejection fraction (%)	Day-Night pattern of arrhythmias	Epworth Sleepiness Scale	Apnea hypopnea index (n/h)	Central apnea (n/h)	Obstructive apnea (n/h)	Arousal index (n/h)	Mean SaO ₂ (%)	lowest SaO ₂ (%)	Percent SaO ₂ < 90 % (%)
1	36	M	34.7	75	Day < Night	8	64.4	5.8	10.8	59.9	89	54	41.6
2	45	M	32.3	53	Day < Night	12	23.7	1.1	5.9	18.2	88	75	5.6
3	49	M	22.4	62	Day = Night	5	30.8	24.2	2.1	29.2	95	87	0.0
4	51	M	30.1	75	Day < Night	6	32.7	0.6	21.7	29.5	95	75	8.4
5	62	M	28.0	62	Day > Night	6	27.6	0.0	5.6	23.5	94	85	1.5
6	64	F	21.6	66	Day > Night	12	23.1	0.5	6.0	31.4	89	82	5.4
7	68	F	23.7	52	Day > Night	3	18.4	1.4	1.4	9.0	89	77	57.5
8	71	M	22.6	57	Day > Night	7	18.7	11.4	0.7	25.1	94	82	1.6
9	74	F	27.8	80	Day = Night	12	19.1	0.7	11.0	30.1	94	75	4.4
10	75	M	28.7	67	Day > Night	5	30.3	15.3	6.6	32.1	97	89	0.0
11	78	M	26.8	69	Day > Night	11	61.4	3.2	34.1	46.9	-	-	-
12	78	M	25.5	62	Day = Night	3	53.4	1.2	30.7	33.4	94	72	8.3

Patient No.11 could not be detected SaO₂ precisely due to frequent PVCs.