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pressure (p = 0.29, ANOVA). The mean, untreated minimum saturation was 81 ± 11.1 (SD) percent compared to 93 ± 1.1 (SD) percent while using the REMStar Auto (p = 0.04, paired t-Test).

Conclusions: The REMStar Auto treated severe OSAHS. The RDI was improved significantly with pressures that were not significantly different from manually adjusted, fixed pressure CPAP.

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DIAGNOSIS OF SLEEP APNEA IN MEN AND IN WOMEN: IS IT PREVALENCE OR PRESENTATION THAT DIFFERS?

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Introduction: Sleep apnea, which increases with age, can seriously undermine quality of life in the short term and pose a risk for hypertension and heart disease in the long-term.[1] It is substantially under-diagnosed and is believed to affect men predominantly.[2] Here we evaluate the basis of the gender disparity and the extent of under-diagnosis.

Methods: Sixty-seven community-based older adults (age ≥ 50) comprised the sample. They responded to posters seeking participants experiencing excessive sleepiness or fatigue during the daytime or sleep problems at night. Posters were located in clinics and seniors' meeting places. Individuals were excluded if they had a medical condition or were taking medication known to cause the presenting complaints. Participants were evaluated by a sleep medicine specialist and by interview, questionnaire and one night of polysomnography. There were more women (58%) than men (42%) in the sample.

Results: Polysomnographic data indicate high rates of primary sleep disorders: 96% of men and 74% of women met diagnostic criteria for a breathing disorder, periodic limb movement disorder (PLMD), or both. Women were significantly more likely to present with only insomnia, 26% vs. 1%, (χ^2 (1) = 5.78, p < .05). Table 1 contains the details. To explain the traditional gender bias in referring patients for sleep studies, we selected self-report and physiological data in the Apnea/Hypopnea group. A striking finding on physiological indices is that women had significantly lower RDI (respiratory disturbance index) than men (t(28) = 2.24, p < .05), suggesting less severe breathing obstruction. Yet, they experienced the same level of oxygen desaturation during sleep (t(28) = 0.78, p > .05). Presentation of the complaint also differed between men and women. While both reported significant daytime sleepiness, women were more likely to report daytime fatigue as well (χ^2 (1) = 5.78, p < .05). Women also reported more sleep problems such as difficulty initiating sleep (χ^2 (1) = 5.43, p < .05) and non-restorative sleep (χ^2 (1) = 3.9, p < .05). They scored higher on various indexes of psychological distress as well.

Table 1

Age and Diagnosis for Women and Men.

	Women		Men	
Age (Mean)	62.6		63.1	
Diagnosis	N	%	N	%
Apnea/Hypopnea	23	59	21	75
RLS/PLMD	3	8	1	4
Mixed Sleep Disorder	3	8	5	4
Insomnia Only	10	26	1	1
Total	39	100	28	100
RDI (Mean)	26.1		42.5	
SpO2 minimum (Mean)	87.3		88.8	

Conclusions: We conclude that of people suffering from sleep apnea/hypopnea syndrome, women present more diverse complaints than men. This can make it more difficult for a general practitioner to identify those women who could benefit from polysomnographic assessment. In view of the high percentage of treatable physiological sleep disorders found in both the men and women of our sample, we suggest that it would be prudent medical practice to refer to the sleep laboratory all those over 50 who complain of excessive sleepiness or fatigue during the day and/or sleep problems at night.

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642.J

HEART RATE VARIABILITY: RELATION TO SLEEP APNEA AND SLEEP STAGE

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Introduction: Spectral analysis of Heart Rate Variability (HRV) is a measure of autonomic nervous system (ANS) functioning. Decreased HRV occurs with autonomic neuropathy (1) and aging (2). In apnea patients, the repeated hypoxic insults and arousals potentially impair ANS functioning. If correct, HRV should decrease as apnea severity increases. Alternatively, HRV could increase as apnea increases because of changes in sympatric tone (3).

Methods: We analyzed HRV in 105 patients excluding those with frequent pre-ventricular contractions, heart transplant, and severe cardiomyopathy. For each patient, we selected an apnea free 3-6 minute sample from sleep stages 0, 2 and REM for analysis. Digitized ECG data were collected at a 128 Hz