

# Is Sleep Apnoea Unrecognised in Patients with Atrial Fibrillation?

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I have no conflicts of interest to declare

# Introduction

- Recognised association between atrial fibrillation and obstructive sleep apnoea [1]
- Consequent worse outcomes and poor rate control with antiarrhythmic drugs, cardioversion and ablation [2]
- We reviewed the incidence in our institution and the relation to self-reported sleepiness

# Method

- All new patients with AF attending nurse led clinic over a 10 week period referred for possible OSA
- Invited to attend on 2 occasions for limited home based multi channel sleep studies (Alice NightOne)
- Self-reported sleepiness assessed using Epworth questionnaire
- Results interpreted by resp physiologist, patients with significant sleep disordered breathing invited to attend sleep clinic

# Philips Alice NightOne



# Epworth Sleepiness Scale (ESS)

Situation	Chance of dozing (0-3)			
Sitting and reading	0	1	2	3
Watching television	0	1	2	3
Sitting inactive in a public place—for example, a theater or meeting	0	1	2	3
As a passenger in a car for an hour without a break	0	1	2	3
Lying down to rest in the afternoon	0	1	2	3
Sitting and talking to someone	0	1	2	3
Sitting quietly after lunch (when you've had no alcohol)	0	1	2	3
In a car, while stopped in traffic	0	1	2	3
<b>Total Score</b>				

0 = would never doze                      2 = moderate chance of dozing  
 1 = slight chance of dozing              3 = high chance of dozing

Johns MW. *Sleep*. 1991;14:540-545.  
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ESS total score  $\geq 10$  indicates possible excessive daytime sleepiness or sleep disorder.

# Results

- 41 patients referred to sleep service, 37 attended
- Mean age (SD) 69 (12.8) years, 73% male
- 21 (56%) had significant sleep apnoea, AHI 15 or greater
- 5 patients had predominantly central events
- 34 patients had both sleep study and accurate Epworth score – elevated in only 3 with sleep apnoea

# Results

- Further analysis to try to identify which patients should be referred for sleep studies
- Compared age, BMI, collar size, snoring history, Epworth Sleepiness Score, LV dysfunction, Mallampati III and IV
- No statistically significant differences found, although may be due to small group size



# Results

	Group 1 AHI >15, N=21		Group 2 AHI 5-15, N=10		Group 3 AHI <5, N=6		Group 1 & 3 P Value		
Age	73.4 (8.99)		62.2 (17.6)		65.5 (10.7)		0.79		
BMI	32.4 (6.8)		33.8 (8.08)		28 (4.3)		0.395		
Collar	16.7 (1.84)		16.14 (1.06)		15.5 (1.0)		0.2		
Snore		71.4%		77.7%		25%	0.153		
ESS	6.57 (3.9)		6.0 (2.35)		4.6 (3.2)		0.289		
LVSD		26.6%		28.5%		60%	0.176		
MP		76.2%		100%		100%	0.579		

# Conclusions

- 56% of patients referred to a nurse led clinic had a diagnosis of sleep apnoea. This is comparable to other studies which have shown a similar result (Stevenson et al <sup>[2]</sup>)
- No relationship found between self-reported sleepiness (ESS) and sleep apnoea
- Routine sleep assessment cannot differentiate between patients

# Conclusions

- Patients with atrial fibrillation should be considered for sleep study referral, even if relatively asymptomatic
- Close interdisciplinary collaboration between specialists
- More work is required to find other risk factors that clearly identify which AF patients are more likely to have sleep apnoea to try to reduce the burden on sleep clinics.

# References

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