

Obstructive sleep apnea syndrome relation to echocardiography and out-come in patients undergoing coronary angiography

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Abstract

Background: Cardiovascular illnesses were responsible for the deaths of 17.3 million individuals worldwide ⁽¹⁾. Obstructive sleep apnea (OSA) occurs when the airway frequently shuts while a person is sleeping. Obstructive sleep apnea is associated with an increased risk of cardiovascular disease. The prevalence of moderate to severe OSA (Apnea–Hypopnea Index (AHI) is ≥ 15 events/h) ranges from 6 to 17% of the general population ⁽²⁾.

Aim: To assess prevalence of obstructive sleep apnea in patients with coronary artery disease.

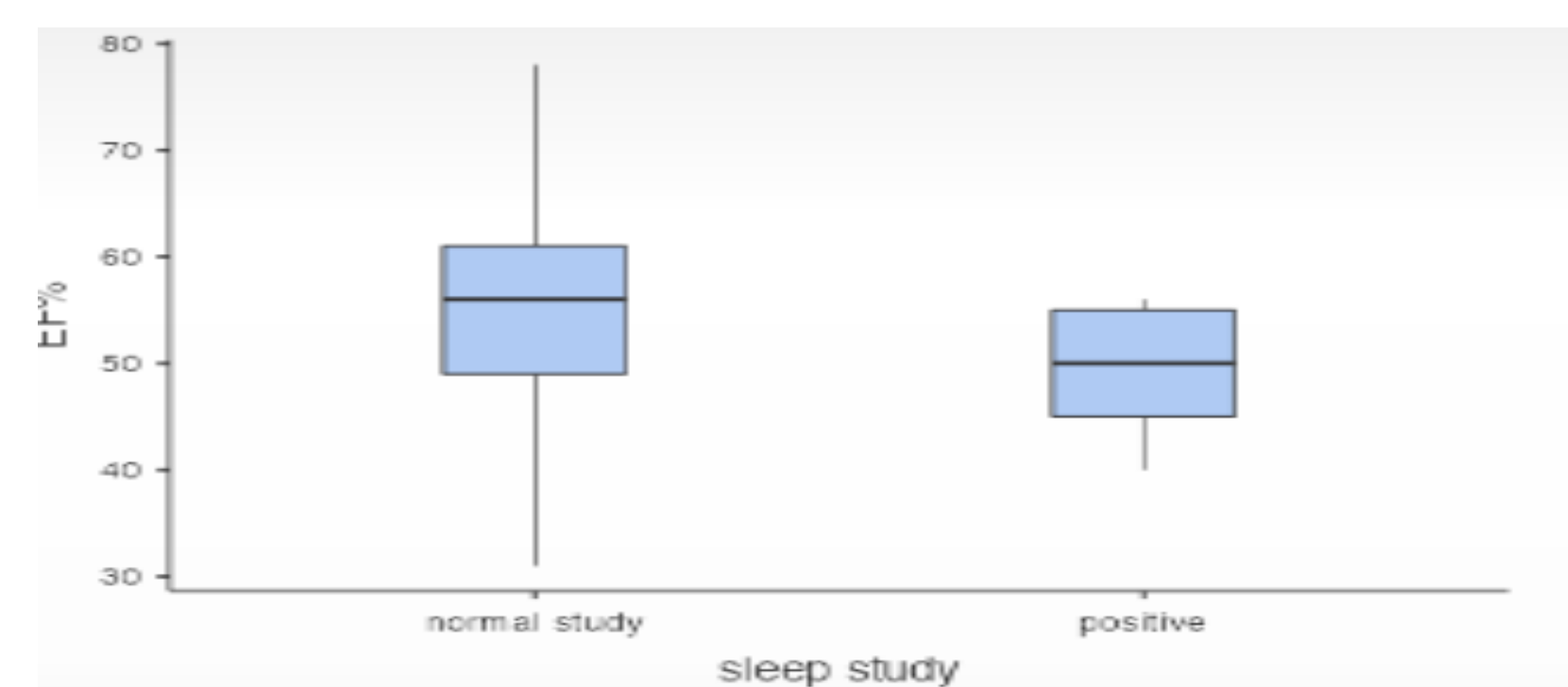
Patients and methods: For this cross sectional observational study, one hundred Egyptians with coronary angiography-proven disease were chosen at random. They all had thorough physicals and were given their medical records. One of the instruments used to diagnose sleep apnea was the Epworth Sleepiness Scale (ESS) in conjunction with the STOPBANG questioner. Additionally, an echocardiography, an electrocardiogram, a polysomnogram (PSG), and the patient's neck circumference were used to diagnose sleep apnea.

Results

The mean age of all studied patients was 60.1 ± 9.9 years, there were 64 males (64%) and 36 females (36%). Polysomnography revealed 34 positive patients (34%) with OSAS. There was a statistically significant negative correlation between apnea hypopnea index (AHI) and left ventricular ejection fraction (LVEF%). Using multivariate logistic regression analysis, our results demonstrated that number of desaturations, Hypopnea, and AHI act as predictive values for bad coronary angiography outcome (arrhythmias, cardiogenic shock, blockage of the stented artery, need coronary artery bypass graft or death).

Comparison between patient with confirmed OSAS regarding the Gensini score

	OSAS (n: 34)	Non OSAS (n:66)	t/x2	P
(Gensini Score)	60.2±22.02	15.91±8.38	15	.000



Conclusion

Echocardiographic evidence of ventricular dysfunction is strongly linked to obstructive sleep apnea. It was shown that OSA (obstructive sleep apnea) had a statistically significant correlation with a poor outcome in patients with CAD (coronary artery disease).

References

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