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Outcomes for Resistant Hypertension in Patient on Treatment for Obstructive Sleep Apnea: An Integrated Literature Review
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Abstract

Background: Resistant hypertension (rHPT) occurs in 15 to 20% of treated hypertensive patients, and 70 to 80% of resistant hypertensive patients have obstructive sleep apnea (OSA). CPAP therapy in hypertensive patients with obesity can significantly reduce the incidence of rHPT.

Objectives: This study explores the research that has been conducted regarding the effects of treatment of OSA in patients with hypertension. It also explores the correlation of controlling OSA and reduced cardiovascular morbidities in 15% - 20% hypertensives with rHPT.

Method: The integrative literature review was conducted using the keywords “resistant hypertension, obstructive sleep apnea and hypertension” to search the literature between 2012 to 2017.

Results: CPAP treatment reduced the mean, systolic and diastolic blood pressures and changed the classification of patients from rHPT to controlled hypertension. CPAP treatment significantly decreased the aldosterone-to-renin ratio which is associated with increased blood pressure.

Conclusion: This study found a significant reduction in cardiovascular morbidities and reduction of blood pressure in rHPT with good control of coexistent OSA. Considering that obesity, poor dietary choices, advancing age, poor medication compliance, poor awareness of the secondary causes of RHPT, increased aldosterone to renin ratio, increased sympathetic activity, behavioral and lifestyle modifications are key variables in the development of rHPT. Active recognition of these factors will help in early cognition and care of patients with rHPT.

Key words: Resistant hypertension, obstructive sleep apnea, hypertension.