OPEN ACCESS Freely available online

Journal of Sleep Disorders & Therapy

Perspective

Narcolepsy and Heart: A Comprehensive Examination of Cardiovascular Implications

Daniel P Cardinali*

Department of Medicine, UCA Pontificia Universidad Católica Argentina Buenos Aires, Argentina

DESCRIPTION

Narcolepsy, a chronic neurological disorder characterized by excessive daytime sleepiness, sudden loss of muscle tone (cataplexy), hallucinations, and sleep paralysis, has long been the subject of scientific investigation. While its primary symptoms affect sleep-wake cycles, emerging research suggests a complex interplay between narcolepsy and cardiovascular health. This article explores the intricate connection between narcolepsy and cardiovascular disease, illuminate on the potential risks and mechanisms that link these seemingly unrelated conditions.

Increased cardiovascular risk in narcolepsy patients

Recent studies have indicated a potential association between narcolepsy and an elevated risk of cardiovascular diseases. Individuals with narcolepsy may face a higher likelihood of developing conditions such as hypertension, coronary artery disease, and stroke. The reasons for this increased risk are multifaceted and involve both the neurological and physiological aspects of narcolepsy. Narcolepsy disrupts the normal sleep architecture, leading to fragmented sleep patterns and frequent awakenings during the night. This chronic sleep fragmentation is believed to contribute to autonomic nervous system dysfunction, which plays a pivotal role in regulating cardiovascular functions. Disruptions in autonomic control may lead to increased blood pressure, heart rate variability, and other cardiovascular irregularities.

Impact of excessive daytime sleepiness

Excessive daytime sleepiness, a indication symptom of narcolepsy, not only impairs daily functioning but may also have implications for cardiovascular health. The constant struggle to stay awake during waking hours can lead to heightened stress levels, increased sympathetic nervous system activity, and subsequently, elevated blood pressure.

Cataplexy and cardiovascular events

Cataplexy, characterized by sudden muscle weakness or paralysis triggered by strong emotions, may also contribute to cardiovascular risks. The sudden loss of muscle tone can affect respiratory muscles and potentially lead to respiratory disturbances during cataplectic episodes. These respiratory changes may impact oxygen levels and strain the cardiovascular system, especially in severe cases.

Inflammation and immune dysregulation

Emerging evidence suggests that narcolepsy may involve immune dysregulation and chronic low-grade inflammation. Both inflammation and immune dysfunction are known contributors to cardiovascular diseases. The connection between narcolepsy-associated immune changes and cardiovascular health warrants further exploration to fully understand the underlying mechanisms.

Treatment implications

Managing narcolepsy involves addressing its symptoms, and treatment modalities such as stimulant medications, antidepressants, and lifestyle interventions are commonly prescribed. However, the impact of these treatments on cardiovascular health should be carefully considered. Stimulant medications, for instance, may elevate heart rate and blood pressure, necessitating close monitoring in individuals with pre-existing cardiovascular conditions.

CONCLUSION

The link between narcolepsy and cardiovascular disease is a burgeoning field of research that underscores the intricate interplay between sleep disorders and overall health. As our understanding of these connections deepens, healthcare professionals can customize interventions to mitigate cardiovascular risks in individuals with narcolepsy. Continued research is essential to unravel the precise mechanisms underlying this association and develop targeted strategies for both the prevention and management of cardiovascular diseases in narcolepsy patients.

Correspondence to: Daniel P Cardinali, Department of Medicine, UCA Pontificia Universidad Católica Argentina Buenos Aires, Argentina, E-mail: Cardinali@gmail.com

Received: 02-Oct-2023, Manuscript No. JSDT-23-28329; **Editor assigned:** 04-Oct-2023, PreQC No. JSDT-23-28329 (PQ); **Reviewed:** 18-Oct-2023, QC No. JSDT-23-28329; **Revised:** 25-Oct-2023, Manuscript No. JSDT-23-28329 (R); **Published:** 02-Nov-2023, DOI: 10.35248/2167-0277.23.12.491.

Citation: Cardinali DP (2023) Narcolepsy and Heart: A Comprehensive Examination of Cardiovascular Implications. J Sleep Disord Ther. 12:491.