Insomnia and Risk of Cardiovascular Disease

Observational data and biological plausibility suggest a relationship between insomnia and cardiovascular disease (CVD), but little is known about how treatment of insomnia may impact CVD, and causality is difficult to ascertain from observational studies, according to a review to appear in CHEST Journal. The researchers emphasise the need for randomised controlled trials "to determine whether insomnia is in fact on the causal pathway for CVD, a mediator for depression or other risk factors that cause CVD."

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Insomnia is the most prevalent sleep disorder in the United States and is highly comorbid with a number of cardiovascular diseases. In the last decade a number of observational studies have demonstrated a high prevalence of insomnia among patients with a variety of cardiovascular diseases and heart failure. Despite some inconsistencies in the literature, likely due to variation in how insomnia is defined and measured, the existing data suggest that insomnia, especially when accompanied by short sleep duration, is associated with increased risk for hypertension, coronary heart disease and recurrent acute coronary syndrome, and heart failure.

"There are emerging data linking disturbed sleep (including insomnia and short sleep duration) with intermediate mechanisms for heart disease, such as elevations in pro-inflammatory biomarkers and blood pressure," the authors write. "Insomnia also appears to increase incidence of depression, which can independently contribute to CVD."

Given how common insomnia is in patients with CVD and its impact on quality of life, there is potential value in routinely screening patients with CVD for insomnia and further defining the role of insomnia screening and treatment among patients with CVD, according to the researchers.

"There are needs to further refine measurements of insomnia phenotypes, elucidate the role of short sleep duration in insomnia-associated CVD risk; and address whether individuals with a predominance of problems with prolonged sleep latency as compared to sleep maintenance or early awakenings have different prognosis," the authors note. "Mechanistic studies and randomised controlled trials, as well as studies of large well characterised samples, are all needed to achieve a better understanding of the mechanisms by which insomnia contributes to CVD as well as define who to most effectively target for sleep interventions."

Source: CHEST
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