

A Review on the Dementia Risk in Patients with Insomnia

Gopal Kurawattimath*

Department of Neurology, Dayananda Sagar University, Bengaluru, India

Abstract

A subjective illness known to increase the likelihood of dementia is insomnia. In this study, we looked into the relationship between insomnia treatment with acupuncture and dementia risk. We gathered information from the public health care coverage exploration data set (NHIRD) of Taiwan to dissect the occurrence of dementia in patients with a sleeping disorder who got needle therapy treatment. A lower risk of dementia was observed in those with insomnia who received acupuncture treatment (adjusted hazard ratio=0.54, 95% confidence interval=0.50-0.60) than in those who did not. The acupuncture group had a significantly lower cumulative incidence of dementia than the non-acupuncture group (log rank test, p 0.001) According to the findings; acupuncture treatment significantly slowed or stopped the progression of dementia in insomniac patients.

Keywords: Insomnia; Hazard; Dementia; Health care; Acupuncture

Introduction

Sleep disturbances are notable early signs of degenerative brain diseases, such as dementia and Parkinson's disease. Some people with early dementia complain of sleep problems before a decline in cognitive functions, such as memory and judgment, is diagnosed [1]. Insomnia can serve as an early warning symptom of dementia and provide an opportunity for early treatment in the prodromal stage of dementia. Insufficient sleep or poor sleep quality are associated with cognitive decline. Insomnia also increases the risk of depression and cardiovascular disease, which damages improved sleep, may also improve cognitive function in older adults with mild cognitive impairment. Acupuncture has been shown to improve sleep quality and alleviate symptoms of fatigue and anxiety in patients [2]. Compared with BZDs, effective in improving sleep quality and short term memory in patients with chronic insomnia. Additionally, acupuncture has been reported to raise the level of melatonin, lower the level of cortisol in plasma and reduce the hyperarousal state of patients. One study indicated that acupuncture relieved accompanying. Non pharmacological treatments, such as acupuncture, are worth investigating for the treatment of insomnia. Acupuncture was reported to improve sleep quality and alleviate symptoms of fatigue and anxiety in patients. Acupuncture has been demonstrated to be more effective in improving sleep quality and short term memory in patients with chronic insomnia than hypnotics such as Benzodiazepines (BZDs) [3].

The need for ongoing follow up is one of the main obstacles in the research on dementia prevention. The delay between risk factor openness and dementia analysis might possibly surpass 10 years [4]. To accurately estimate dementia risk, only a high quality cohort with a sufficient amount of follow up time and low dropout rate can be utilized. With a coverage rate of over 99 percent and a tracking time of more than 12 years, Taiwan's National Health Insurance Research Database (NHIRD) is a good source for dementia prevention research. Acupuncture's effects on the risk of dementia in insomnia patients have not received sufficient research attention, despite clinical trials evaluating its efficacy on sleep disorders. As a result, the aim of this study was to determine whether or not acupuncture could lower the risk of dementia in insomniac patients. We employed the Cox proportional hazard model, adjusted Hazard Ratio (aHR) and 95 percent Confidence Interval (CI) to clarify the connection between acupuncture treatment and dementia risk in insomniac patients. The occurrence pace of dementia is introduced concerning 1000 man years. The cumulative incidence curves for the acupuncture and non-acupuncture

cohorts were calculated using the Kaplan Meier method.

The contrast between two bends was resolved utilizing the log rank test. SAS version 9.4 (SAS institute, Cary, NC, USA) was used for all statistical analyses. Using R, the cumulative incidence curve was plotted. This study used a p 0.05 two sided significance level.

Literature Review

The main finding of this 13 years retrospective cohort study was that insomniac patients who received acupuncture had a lower risk of dementia. Patients over 65 who were diagnosed with depression or coronary artery disease, lived in a highly urbanized area and received acupuncture treatment also had a significantly lower risk of dementia. The occurrence pace of dementia in the needle therapy partner was essentially lower than that in the control accomplice in the subsequent year after follow up and the rate stayed low for as long as 10 years, as displayed [5]. When it comes to lowering the likelihood of dementia in insomniacs, acupuncture may provide two potential benefits. Second, acupuncture may increase the length and quality of sleep in patients with insomnia and alleviate accompanying symptoms of depression and fatigue. Adequate and efficient sleep is associated with a reduced risk of cognitive deterioration. Sleep problems in middle age are considered risk factors for dementia in older patients. Second, acupuncture may increase the length and quality of sleep in patients with insomnia and alleviate accompanying symptoms of depression and fatigue. Patients with insomnia between the ages of 50 and 65

***Corresponding author:** Gopal Kurawattimath, Department of Neurology, Dayananda Sagar University, Bengaluru, India; E-mail: gopalkurwa43@gmail.com

Received: 27-April-2023, Manuscript No. DEMENTIA-23-97242; **Editor assigned:** 01-May-2023, PreQC No. DEMENTIA-23-97242 (PQ); **Reviewed:** 16-May-2023, QC No. DEMENTIA-23-97242; **Revised:** 21-June-2023, Manuscript No. DEMENTIA-23-97242 (R); **Published:** 28-June-2023, DOI: 10.4172/DEMENTIA.1000183

Citation: Kurawattimath G (2023) A Review on the Dementia Risk in Patients with Insomnia. J Dement 7: 183.

Copyright: © 2023 Kurawattimath G. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

showed a greater reduction in the risk of dementia when receiving acupuncture than patients younger than 50. Needle therapy may likewise diminish the gamble of dementia in patients with sleep deprivation taking BZDs and non-BZD entrancing medications. In patients with chronic insomnia, it was reported that acupuncture increased serum Gamma Aminobutyric Acid (GABA) concentrations and improved sleep duration and daytime function. BZDs also act on GABA receptors to induce sleep and relaxation. According to one study, patients with insomnia and cognitive impairment should either avoid taking BZDs or combine BZDs with acupuncture treatment to improve sleep and reduce the risk of dementia. However, side effects of BZDs include memory impairment, cognitive decline, daytime sleepiness and dizziness. We recommend that patients with cognitive impairment avoid taking BZDs or combine BZDs with acupuncture treatment to improve sleep and reduce the risk of dementia. There is a strong link between cognitive decline and insomnia, according to research.

Discussion

In order to improve sleep and lower their risk of dementia, we recommend that patients who suffer from both insomnia and cognitive impairment refrain from taking BZDs or combine treatment with acupuncture. Improved sleep has been shown to improve cognitive function and there is a strong correlation between insomnia and cognitive decline; against this setting, this study explains the job of needle therapy in the treatment of sleep deprivation and avoidance of dementia. Patients with insomnia who are also taking antidepressants are less likely to develop dementia after receiving acupuncture; a similar effect on dementia prevention has been observed in depression patients receiving acupuncture. We only included patients with a correct diagnosis from a physician as study participants because dementia and insomnia are both complex and chronic diseases [6]. In addition, patients were only included in this study after a single insomnia hospitalization or at least two outpatient visits. These restrictions ensure the quality of inclusion criteria and reduce selection bias while underestimating the prevalence of insomnia among patients. In addition, the national health insurance administration of Taiwan requires physicians to undergo monthly peer reviews and to diagnose dementia and insomnia in accordance with the criteria outlined in the diagnostic and statistical manual of mental disorders (Fourth edition); it's possible that the severity of these conditions was underestimated as a result of these stringent requirements.

Conclusion

The present findings preliminarily indicate that patients with insomnia who received acupuncture treatment had a lower incidence of dementia than patients without insomnia, indicating that acupuncture may slow the progression of dementia. Be that as it may, a few patients with a sleeping disorder might get different medicines by self-pay which is excluded from NHIRD data set. In order to discover the underlying mechanisms underlying the effect of acupuncture on insomnia, our research emphasizes the necessity of clinical trials incorporating brain imaging and laboratory data.

Declaration of Competing Interest

The authors declare no conflicts of interest.

Acknowledgment

None.

References

1. Chen PL, Lee WJ, Sun WZ, Oyang YJ, Fuh JL (2012) Risk of dementia in patients with insomnia and long term use of hypnotics: A population based retrospective cohort study. *PloS One* 7: e49113.
2. Huang CH, Lin SK, Lin MC, Hsieh CL (2023) Acupuncture is associated with reduced dementia risk in patients with insomnia: A propensity score matched cohort study of real world data. *J Tradit Complement Med* 13: 297-305.
3. Hung CM, Li YC, Chen HJ, Lu K, Liang CL, et al. (2018) Risk of dementia in patients with primary insomnia: A nationwide population based case-control study. *BMC Psychiatry* 18:1-7.
4. Baek MS, Han K, Kwon HS, Lee YH, Cho H, et al. (2021) Risks and prognoses of Alzheimer's disease and vascular dementia in patients with Insomnia: A nationwide population based study. *Front Neurol* 12: 611446.
5. Chiu HY, Lin EY, Wei L, Lin JH, Lee HC, et al. (2015) Hypnotics use but not insomnia increased the risk of dementia in traumatic brain injury patients. *Eur Neuropsychopharmacol* 25: 2271-2277.
6. McCurry SM, Gibbons LE, Logsdon RG, Vitiello MV, Teri L (2009) Insomnia in caregivers of persons with dementia: Who is at risk and what can be done about it?. *Sleep Medicine Clinics* 4: 519-526.