

Nocturia: a bothersome urological symptom in the elderly

Bahram Shekarchi
Mohammad Zamani

Student Research Committee, Babol
University of Medical Sciences,
Babol, Iran

Dear editor

We read with great interest the valuable study by Shao et al,¹ which has been recently published in *Clinical Interventions in Aging*. The authors mentioned the nocturia as a negative factor, leading to a problem in the sleep status and the daily function of the patients who suffer from lower urinary tract symptoms. For assessment of sleep quality and daytime dysfunction, Shao et al used the “Pittsburgh Sleep Quality Index” and “Epworth Sleepiness Scale,” however, other instruments such as “Insomnia Severity Index” and “Medical Outcomes Study Sleep Scale” also could be used which have high validity and reliability.²⁻⁴ There are not any precise studies using the “Insomnia Severity Index” and the “Medical Outcomes Study Sleep Scale” to evaluate the effects of nocturia on sleep status of patients with lower urinary tract symptom and further surveys are needed in this regard. Also, it was stated that sleep quality of female patients was poorer than that of male patients based on Pittsburgh Sleep Quality Index score.¹ This can be explained by the mental and psychiatric disorders associated with the perimenopause and postmenopause,^{5,6} considering that the age range of females was mainly in the climacteric period. Of course, the exclusion criteria of the study contained only a history of urological treatment and did not include the antipsychotic medications or diuretic usage, which can potentially confound the study outcomes.

Nocturia as a bothersome urological symptom has other adverse effects in addition to those discussed in Shao et al’s article, especially for the elderly patients. It has been demonstrated that nocturia is associated with falls in the aged patients.⁷ Also, it has been reported in a study that nocturia-related falls are associated with a 2.2 increased risk of bone fractures such as hip and arm.⁸ In the given survey, it was also declared that the rate of death in the patients with nocturia (defined as having >1 void per night) is about 2 times more than in those without nocturia. Another investigation revealed that the individuals with nocturia-related falls are 1.5 times more at risk of long-term mortality compared to non-fallers.⁹ According to the mentioned results, it is therefore necessary to study such serious consequences of nocturia, especially in the elderly patients who suffer from lower urinary tract symptom, considering that there is not any research in relation to it.

Disclosure

The authors report no conflicts of interest in this communication.

References

1. Shao IH, Wu CC, Hsu HS, et al. The effect of nocturia on sleep quality and daytime function in patients with lower urinary tract symptoms: a cross-sectional study. *Clin Interv Aging*. 2016;11:879–885.

Correspondence: Mohammad Zamani
Student Research Committee, Babol
University of Medical Sciences,
Ganjafrooz Street, Babol, Mazandaran
47176-47745, Iran
Tel +98 935 9493131
Email mzamani20@gmail.com

2. Morin CM, Belleville G, Bélanger L, Ivers H. The Insomnia Severity Index: psychometric indicators to detect insomnia cases and evaluate treatment response. *Sleep*. 2011;34(5):601–608.
3. Smith MT, Wegener ST. Measures of sleep: the insomnia severity index, medical outcomes study (MOS) sleep scale, Pittsburgh sleep diary (PSD), and Pittsburgh sleep quality index (PSQI). *Arthritis Care Res*. 2003; 49(S5):S184–S196.
4. Viala-Danten M, Martin S, Guillemin I, Hays RD. Evaluation of the reliability and validity of the Medical Outcomes Study sleep scale in patients with painful diabetic peripheral neuropathy during an international clinical trial. *Health Qual Life Outcomes*. 2008;6:113.
5. Guidozzi F. Sleep and sleep disorders in menopausal women. *Climacteric*. 2013;16(2):214–219.
6. Weber MT, Maki PM, McDermott MP. Cognition and mood in perimenopause: a systematic review and meta-analysis. *J Steroid Biochem Mol Biol*. 2014;142:90–98.
7. Vaughan CP, Brown CJ, Goode PS, Burgio KL, Allman RM, Johnson TM. The association of nocturia with incident falls in an elderly community-dwelling cohort. *Int J Clin Pract*. 2010;64(5):577–583.
8. Nakagawa H, Niu K, Hozawa A, et al. Impact of nocturia on bone fracture and mortality in older individuals: a Japanese longitudinal cohort study. *J Urol*. 2010;184(4):1413–1418.
9. Galizia G, Langelotto A, Cacciatore F, et al. Association between nocturia and falls-related long-term mortality risk in the elderly. *J Am Med Dir Assoc*. 2012;13(7):640–644.

Author's reply

I-Hung Shao^{1,*}

Chia-Chen Wu^{2,*}

Hueih-Shing Hsu¹

Shyh-Chyi Chang¹

Hsu-Hsiang Wang¹

Heng-Chang Chuang¹

Yuan-Yun Tam³

¹Division of Urology, Department of Surgery, Lotung Poh-Ai Hospital, Yilan County, ²Department of Otorhinolaryngology – Head and Neck Surgery, Linkou Chang Gung Memorial Hospital, Chang Gung University, Taoyuan, ³Department of Otorhinolaryngology – Head and Neck Surgery, Lotung Poh-Ai Hospital, Yilan County, Taiwan, Republic of China

*These authors contributed equally to this work

Correspondence: Yuan-Yun Tam
Department of Otorhinolaryngology – Head and Neck Surgery,
Lotung Poh-Ai Hospital, No 83, Nanchang Street, Luodong Township,
Yilan County 265, Taiwan, Republic of China
Tel +886 3 954 3131 ext 1961
Email darcietam@gmail.com

Dear editor

Thank you very much for sharing such valuable letter regarding to our published article and giving us opportunity to share our response letter.

As Bahram Shekarchi and Mohammad Zamani said, there exist a great impact on elderly patients with nocturia,

including life quality, further medical issues, or even mortality. The impact also exists among the patients with lower urinary tract symptoms.

“Insomnia Severity Index” and “Medical Outcomes Study Sleep Scale” are both also great instruments to evaluate our patients’ sleep quality. In our published work, we used the “Pittsburgh Sleep Quality Index” and “Epworth Sleepiness Scale” because they are widely used among our clinical practice. The Pittsburgh Sleep Quality Index focuses on different aspect of sleep quality including sleep latency, sleep duration, sleep efficiency, sleep disturbance, sleep medication use, and daytime dysfunction due to sleepiness. The Epworth Sleepiness Scale gives more detailed information on general daytime dysfunction. We have utilized these instruments to evaluate one’s life quality during day and night respectively. However, because there are only few studies referring to this issue, more instruments or tools could be used.

Indeed, there are plenty of medical and psychological issues affecting sleep quality and daytime dysfunction including climacteric period or medication usage as mentioned by Bahram Shekarchi and Mohammad Zamani. We should design a more thorough study in the near future.

Disclosure

The authors report no conflicts of interest in this communication.

Dove Medical Press encourages responsible, free and frank academic debate. The content of the Clinical Interventions in Aging ‘letters to the editor’ section does not necessarily represent the views of Dove Medical Press, its officers, agents, employees, related entities or the Clinical Interventions in Aging editors. While all reasonable steps have been taken to confirm the content of each letter, Dove Medical Press accepts no liability in respect of the content of any letter, nor is it responsible for the content and accuracy of any letter to the editor.

Clinical Interventions in Aging

Publish your work in this journal

Clinical Interventions in Aging is an international, peer-reviewed journal focusing on evidence-based reports on the value or lack thereof of treatments intended to prevent or delay the onset of maladaptive correlates of aging in human beings. This journal is indexed on PubMed Central, MedLine,

CAS, Scopus and the Elsevier Bibliographic databases. The manuscript management system is completely online and includes a very quick and fair peer-review system, which is all easy to use. Visit <http://www.dovepress.com/testimonials.php> to read real quotes from published authors.

Submit your manuscript here: <http://www.dovepress.com/clinical-interventions-in-aging-journal>

Dovepress