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STUDIES REPORT NOCTURIA WAS ASSOCIATED WITH RISK OF DEATH AND REPRESENTED A SIGNIFICANT ECONOMIC BURDEN TO U.S. SOCIETY

“Misunderstood” Condition May Have Serious Implications

San Francisco, CA – June 1, 2010 – Nocturia, defined as two or more urinations (voids) per night, may be a more serious condition than widely thought, according to the findings of three new studies. One study suggested nocturia in adults is associated with a significantly increased risk of death, which was even more pronounced in younger adults. Another study reported that risk of death in the elderly was associated with the frequency of night-time urination (voiding). A third study suggested that nocturia represented a significant economic burden to society. All three studies were presented here at the American Urological Association 2010 Annual Meeting.

A US-based study suggested that the presence of nocturia was a predictor of mortality in both younger adults and the elderly, and more so in younger men and women (under age 65) than in those men and women age 65 and older. There was also a trend toward increasing mortality risk as the number of night-time urinations (voids) increased.¹

A Japanese population-based survey of 788 subjects aged 70 years and older, also reported a significantly increased risk of mortality associated with frequency of night-time urination.² This study, presented by Dr. Haruo Nakagawa, was selected as “Best Poster,” a distinction given by the moderator of the particular poster session at which it was presented. The third study suggested that nocturia represented a significant economic burden for US society due to decreased work productivity in professionally active adults, and the impact of nocturia on falls in adults age 65 and over.³

“Nocturia can negatively impact a person’s overall health, due to frequent night-time visits to the bathroom that may result in fatigue as a result of interrupted sleep, as well as falls,” said Jeffrey P. Weiss, M.D., FACS, Professor and ACGME Program Director in the Department of Urology at SUNY Downstate Medical School. “This common condition is often under-diagnosed and misunderstood by the medical community and should be taken more seriously.”

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Increased Mortality Risk in Younger Adults

Data from the U.S. Third National Health and Nutrition Examination Survey (NHANES III) indicated that nocturia was a predictor of mortality, more so in relatively younger people than in the elderly. Adjustments for co-morbid conditions that are associated with nocturia, including heart disease, diabetes and obesity, only partially explained the increased mortality. Analyses were conducted on a sample of 15,988 men and women age 20 and older from the NHANES III national probability survey conducted between 1988 and 1994, with mortality data obtained by linkage of NHANES III to death certificate data from the National Death Index through December 31, 2000. In the NHANES III survey, nocturia was assessed by the question, 'How many times a night do you usually get up to urinate?' The overall prevalence of nocturia, defined as two or more episodes of urination per night, was found to be 15.5% among men and 20.9% among women, and increased rapidly with age.¹ Multivariate analyses showed men and women with two or more night-time urinations had a statistically significant trend towards increased mortality; when the analyses were done by age groups, there was a greater association with mortality risk among adults aged 64 or younger.

These analyses were supported through an unrestricted educational grant to New England Research Institutes, Inc. from Ferring Pharmaceuticals.

Increased Mortality Risk in the Elderly

A prospective cohort study of 788 Japanese men and women with a mean age of 76 years concluded that there was an increase in mortality associated with night-time frequency of urination, even after adjustments for several factors that could contribute to mortality. The investigators conducted a Comprehensive Geriatric Assessment, which involved extensive health interviews with urban residents aged 70 years and older in 2003. Mortality over five years was investigated through the national health insurance system.² The study was supported by a Grant for Research conducted by the Japanese Society for Promotion of Science, from the Ministry of Education, Culture, Sports, Science and Technology, Japan, with research grants from the Chiyoda Mutual Life Foundation and from the Universe Foundation.

Economic Burden of Nocturia

This study suggested that nocturia might pose a significant economic burden to society because of its association with decreased work productivity in professionally-active people, which is associated with poor sleep. Medical treatment for falls associated with nocturia is an additional cost to society. Using the Boston Area Community Health (BACH) study, the investigators estimated that 28 million people ages 30 and older in the U.S. regularly suffer from two or more night-time urinations (voids) per night. Impact of nocturia on work productivity was calculated using published data from a population survey of productivity in professionally-active adults with nocturia versus controls. Based on the investigators' conservative estimate that productivity loss was equivalent to 127 hours per person per year, with an average U.S. wage of \$17.38 per hour, they estimated that economic value of the productivity lost in 2008 was \$61 billion. In the elderly (those aged 65 and older), the investigators estimated that the medical cost of falls associated with nocturia (having 2 or more voids / urinations per night) in 2008 was \$1.5 billion.³

The study was sponsored by Ferring Pharmaceuticals.

About Nocturia

Nocturia is a commonly-reported cause of sleep disturbance in men and women over the age of 50.⁴ It is also a common lower urinary tract symptom (LUTS).⁵ Patients may not seek help because they see nocturia as part of the normal aging process.⁶ Physicians may not recognize nocturnal polyuria, the overproduction of urine at night, as a cause of nocturia.^{7,8,9} The likelihood of developing nocturia increases with age.¹⁰ Sleep disruptions associated with nocturia can often lead to daytime sleepiness, fatigue, and reduced work productivity, compared with controls.^{9,11}

About Ferring Pharmaceuticals Inc.

Ferring Pharmaceuticals Inc. is a subsidiary of Ferring Pharmaceuticals, a privately owned, research-driven Swiss biopharmaceutical company. Ferring Pharmaceuticals specializes in the research, development and commercialization of peptide compounds in urology, gastroenterology, obstetrics/gynecology, and infertility. Ferring Pharmaceuticals Inc. offers a line of urology, infertility, gynecology and orthopaedic products in the U.S. market.

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