Introduction

Narcolepsy and Excessive Daytime Sleepiness: From the Bench to the Bedside

Thomas Roth, Ph.D.

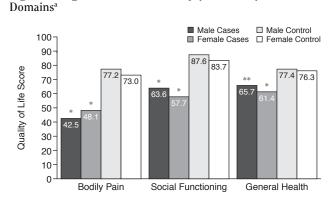
arcolepsy is a chronic, neurologic sleep disorder resulting from the dysregulation of sleep-wake cycles.^{1,2} Narcoleptic patients experience excessive daytime sleepiness, cataplexy, sleep paralysis, and hypnagogic hallucinations. Narcolepsy is about as prevalent as multiple sclerosis, and can be as disabling in its consequences,³ yet it is underrecognized and underdiagnosed. Because (narcoleptic) undesired sleep episodes can occur at any time, they have severe detrimental effects on daily functions, safety, and work. Patients may fall asleep involuntarily while at work or school, during social activities, or while driving or operating hazardous machinery.¹ Suffering many psychosocial and work-related problems, narcoleptic patients face a lifetime of poorer health and quality of life than people without narcolepsy (Figure 1).^{3,4} Whereas no cure is available for narcolepsy, treatment of its symptoms can help minimize its harmful effects.

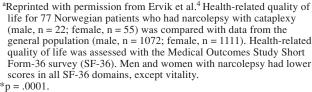
Although the exact etiology of narcolepsy is still mostly unknown, clinical understanding of the underlying causes, as well as treatment options, have increased in the last decade. This supplement will review the epidemiology, diagnosis, pathophysiology, pharmacology, and treatment strategies for narcolepsy and is intended to provide a current, evidence-based examination of narcolepsy from "the bench to the bedside."

REFERENCES

- National Institute of Neurological Disorders and Stroke. Narcolepsy Fact Sheet. National Institute of Neurological Disorders and Stroke 2007. Available at: http://www.ninds.nih.gov/disorders/narcolepsy/ detail_narcolepsy.htm. Accessed July 16, 2007
- Nishino S. Clinical and neurobiological aspects of narcolepsy. Sleep Med 2007;8:373–399
- Mitler MM, Hajdukovic R, Erman M, et al. Narcolepsy. J Clin Neurophysiol 1990;7:93–118
- Ervik S, Abdelnoor M, Heier MS, et al. Health-related quality of life in narcolepsy. Acta Neurol Scand 2006;114:198–204

Figure 1. Negative Effect of Narcolepsy on Quality of Life





**p = .0001

From the Sleep Disorders and Research Center, Henry Ford Hospital, Detroit, Mich.

Supported by an educational grant from Jazz Pharmaceuticals, Inc.

Dr. Roth is a consultant for Abbott, Acadia, Acoglix, Actelion, Alchemers, Alza, Ancile, Arena, AstraZeneca, Aventis, Bristol-Myers Squibb, Cephalon, Cypress, Dove, Elan, Eli Lilly, Evotec, Forest, GlaxoSmithKline, Hypnion, Jazz, Johnson & Johnson, King, Lundbeck, MediciNova, Merck, Neurim, Neurocrine, Neurogen, Novartis, Orexo, Organon, Orginer, Ortho-McNeil, Pfizer, Prestwick, Procter & Gamble, Purdue, Resteva, Roche, sanofi-aventis, Schering-Plough, Sepracor, Servier, Shire, Somaxon, Syrex, Takeda, TransOral, Vanda, Vivometrics, Wyeth, Xenoport, and Yamanuchi; has received grant/research support from Abbott, Aventis, Cephalon, GlaxoSmithKline, Neurocrine, Pfizer, sanofi-aventis, Schering-Plough, Sepracor, Soraxon, Syrex, Takeda, TransOral, Wyeth, and Xenoport; and is a member of the speakers/advisory boards for sanofi-aventis and Takeda.

Corresponding author and reprints: Thomas Roth, Ph.D., Sleep Disorders and Research Center, Henry Ford Hospital, 2799 West Grand Blvd., Detroit, MI 48202 (e-mail: Troth1@hfhs.org).