Sleep Disorders in Alzheimer Patients and their Caregivers: Part II

Elderly people often complain of insomnia or nonrestorative sleep. For the majority of people, making them aware of their habits will be sufficient to solve the problem, for others, alternative approaches will be required. A good night's sleep is as important for the caregiver as it is for those with Alzheimer's disease.

by Bernard Groulx, MD, CM, FRCPC

Dr. Groulx is Associate Professor at McGill University and Chief of Psychiatry, Ste. Anne's Hospital, McGill Centre for Studies in Aging, McGill University, Montreal, Quebec.

In the first part of this article, which appeared in the December 1998 issue of The Canadian Alzheimer Disease Review, I noted that people with Alzheimer's disease (AD) are usually elderly and their caregivers are generally their spouse. Because it is so difficult to take care of a loved one with AD, a good night's sleep is essential. Elderly people often have sleep disorders or, more specifically, complain of sleeping poorly. This article completes the preceding one and is aimed at helping clinicians deal with sleep problems in patients with AD and their caregivers.[1]

The first article in this series stressed how important it is for family physicians to understand the profound changes in sleep patterns that occur as people age, and that they be able to explain this to patients. The importance of assessment and taking a complete family history were also highlighted. This will help identify habits of patients and their caregivers that may be interfering with their ability to sleep. It is hardly surprising that the first form of treatment is education: reminding aging patients of the principles that lie behind a good night's sleep (Table 1).

Nonpharmacologic Treatments

Often family physicians don't think of nonpharmacologic therapy as first-line treatment. The value of some nonpharmacologic treatments are well substantiated at the scientific level although others are not. I feel it is important to describe a few of these treatments because so much is written on the subject and because they are easily accessible. Family physicians should discuss the value of such treatments with their patients.

Psychotherapy

When anxiety is the cause of sleep disorders, psychotherapy can often be beneficial in the long term. In many cases, it is the best choice. Psychotherapy can take many forms: plain support or therapeutic contact relaxation techniques; or cognitive-behavioral, interpersonal or psychodynamic.[2]

A "Traditional" Recipe

Traditionally, when sleep was a long time coming, hot milk and a few bis-

cuits was the recommended cure. There is a scientific basis for this practice: milk contains a great deal of tryptophan, a precursor of serotonin, one of the neurotransmitters involved in sleep. Tryptophan is absorbed better when taken with carbohydrates, such as cookies.

I have taken the trouble of explaining the potential benefits of this traditional recipe to my patients, often with very interesting results. I am aware that the success of this therapy may arise from the placebo effect.

Relaxation

Classic relaxation techniques (like those of Jacobson) or subliminal techniques can produce interesting results and ease sleeping problems.

Water Beds

In many American geriatric institutions, particularly in California, patients have the option of using water beds, which greatly diminish decubital sores. It has been shown that water beds contribute to better sleep and considerably reduce the number of times patients wake, which is a problem for many elderly people.

Other Options

I have witnessed some very interesting acupuncture sessions aimed at improving sleep. I have seen surprising results with techniques such as aromatherapy and massotherapy both in my hospital and in numerous European geriatric centres. In addition, herb teas often produce far better results than neurotropic agents.

One has to keep an open mind about so-called alternative medicine. In fact, some of these approaches warrant in-depth study, especially since physicians are faced with so many complaints from elderly patients who sleep poorly.

Table 1

Advice for Improved Sleep Habits

- Only sleep the number of hours you need to feel refreshed; limit the amount of time you spend in bed and keep it constant
- Get up at the same time every day in order to stay on a constant circadian rhythm; this will make it easier to fall asleep
- Exercise daily at least four hours before going to bed
- Avoid heavy meals before going to bed; a small snack may be useful
- Reduce bright lights, reduce noise to a minimum and maintain a temperature of 21°C in the bedroom
- Reduce or even eliminate the intake of substances like caffeine, nicotine and alcohol
- Have short naps during the day, but avoid napping too often.
- If you wake in the night and it takes more than 20 minutes to get back to sleep, get up and do something until you feel tired again

Different Sleep Disorders

There are five types of clinical sleep disorders.[3] We will briefly describe them here before looking at treatment with medication.

Difficulty falling asleep: Older people often have difficulty falling asleep, but once they are asleep, have no problem sleeping through to the morning. Relaxation techniques can be particularly helpful in such cases.

Difficulty staying asleep: Normal physiological changes are amplified. People fall asleep quite well, but wake several times during the night, sometimes for long stretches. Support and clear explanations about normal sleep patterns in the elderly can be the solution.

Mixed: This type is a combination of the difficulty falling asleep and difficulty staying asleep.

Desynchronized sleep: In these cases, elderly people sleep more during the day than at night. This problem can often be attributed to the care facilities involved. In many homes for the elderly or geriatric hospitals, patients are encouraged (either directly or by a lack of stimulation) to take naps of one or two hours, sometimes even twice a day. If these patients are put to bed at eight p.m., or even earlier, it is not surprising that their sleep cycle is completed by the early hours of the morning. Consequently, the older person will sleep during the late morning or early afternoon, and the cycle will be repeated. It is clear that in this case, changes in the environment would be more appropriate than medication.

Day-night inversion: This problem is found most often in patients with dementia, and can sometimes be very difficult to resolve. This situation becomes intolerable very quickly, especially if the person is living at home. Pharmacotherapy is often required, as much for the patient with dementia as for the caregiver.

Pharmacologic Approaches

The first pharmacologic approach is not to add a medication, but rather to eliminate one. Indeed, many medications interfere with sleep, especially in the elderly.

Family physicians should always check whether it is possible to eliminate these drugs from the treatment regimen (Table 2). If the sleep problem is anxiety-based and nonpharmaceutic approaches have not helped, benzodiazepines can be prescribed. It should be noted, however, that clinical tests have demonstrated that these agents provoke undesirable effects such as increased cognitive deficiency in patients with AD. They can also cause excessive diurnal sedation and are subject to tolerance and withdrawal symptoms.[4]

Table 2

Medication that Can Interfere with Sleep

- Anticholinergics
- Antidepressants
- Antihypertensives
- Antineoplastics
- Central nervous system stimulants (*e.g.,* caffeine and nicotine)
- Corticosteroids
- Decongestants
- Diuretics
- Antihistaminics
- Respiratory stimulants

For the caregiver, short-acting benzodiazepines are preferred, especially if someone is trying to decrease the dose or stop taking the medicine altogether.

Appropriate doses for geriatric patients are in the order of 0.5 mg for lorazepam, 15 mg for oxazepam and to 15 mg for temazepam.

If the sleep disorder is due to a major emotional disorder, an appropriate antidepressant will be the therapeutic pharmacologic solution.

Neuroleptics with a tranquilizing effect should not be used unless the insomnia is clearly caused by psychotic agitation or symptoms of that nature. Although they are sometimes the only effective pharmacologic solution in cases of day-night inversion, a good basic principle to remember is one I call the "baseball law": after three strikes, they're out. Three clinical elements contribute to the development of tardive dyskinesia: age, sex (female), and the presence of cognitive problems. These elements have even more effect in people with dementia. In young people it often takes years before tardive dyskinesia develops. In older people, especially older women with cognitive problems, it can develop in just a few months. Trazodone is very popular for treating insomnia in the elderly, including those with dementia. The dose can be as low as 25 mg at bedtime. It can be increased gradually to 100 mg to obtain the desired sedative effects. It is rare for a higher dose to be more effective, especially in patients with dementia.[5]

Conclusion

For patients with dementia and for their caregivers, an in-depth assessment should be conducted before treatment for insomnia is prescribed. In fact, a number of elderly people who complain about having trouble sleeping have a physiologic rhythm that is normal for their age. Education may reassure those patients. Others suffer from insomnia that is triggered or aggravated by poor sleep habits or by medical or psychologic pathology. These patients may require pharmacologic treatment. People who do not respond to either of these therapies may benefit from non-pharmacologic treatments including hypnotism.

References
1. Groulx B: Elderly Sleep Disorders and Alzheimer's Disease. The Canadian Alzheimer Disease Review, 1998; 3(2), 4-6.
2. Sadavoy J, Leclair K: Treatment of anxiety disorders in late life. Revue canadienne de psychiatrie, 1997; 42(suppl. 1), 28S-33S.
3. Gillin JC, Byerley WS: The diagnosis and management of insomnia. N Engl J Med, 1990; 322, 239-48.
4. Herrmann N: Pharmacotherapy of Behavioral Disturbances in Dementia. The Canadian Alzheimer Disease Review 1998; 2(2), 6-8.
5. Okawa M: The treatment of sleep disorder of older people. Sleep, 1991; 14, 169-77.