The Sundowning Phenomenon

Some people with Alzheimer's disease experience a worsening of agitation and confusion in the afternoon and early evening—a condition for which a variety of coping strategies exist.

Every day at 4 P.M., Mrs. Haas puts on her jacket and announces to her husband that she's going home. Although he explains that she already is home in the retirement community where they've been living for the past two years, she insists that she needs to leave immediately. Over the next hour she becomes increasingly agitated, screaming that her children are alone in the house and that she has to go get them. Finally, at 6 or 7 P.M., she agrees to sit down and eat dinner with her husband.

Becoming agitated in the late afternoon or early evening is a common phenomenon among people with Alzheimer's disease. In fact, a special word—sundowning—is used to describe this behavior. Sundowning can take the form of behaviors not seen during other times of day, or it may represent a worsening of ongoing daily behaviors.

Exactly what causes sundowning is unclear. Possible explanations include fatigue at the end of the day, being overwhelmed by too much sensory input, lack of stimulation (not enough activities or attention), and becoming confused in dim light. Sleep problems, such as sleep apnea and disturbances in the sleep/wake cycle (circadian rhythm), may also play a role. The behavior seems to be more common among people living in nursing homes than in those living at home. Of course, not everyone with Alzheimer's experiences sundowning, and some individuals have more behavior problems early in the day rather than later.

How To Cope

If you are caring for someone with Alzheimer's disease who experiences sundowning, think about what might be triggering the episodes and take steps to minimize those triggers. For example:

Exhaustion. A confused person may be tired in the evening from a day of trying to make sense of his environment. Plan the person's day so that fewer demands, such as bathing, are placed on him in the evening.

Too much input. Noise, glare, and distractions can contribute to agitation. If sundowning coincides with a busy time in your household (for example, dinner preparation, family members arriving, the television being turned on), try to reduce the number of activities going on, or move the person to a quieter area of the house.

Too little input. Some people with Alzheimer's are used to having constant attention and will become agitated when you turn to other responsibilities, such as returning phone calls. Try giving the person a simple task to do nearby, or enlist another family member to spend time with her.

Inadequate lighting. A person who cannot see clearly because of dim light may become confused and visualize objects that aren't there, so make sure the house is well lit in the evening.

If an episode of sundowning occurs, reassure the person using calm, positive statements, or direct the person's attention to another activity, such as going for a walk. Do not raise your voice or argue with the person.

chotherapy, other therapeutic measures such as electroconvulsive therapy, or any combination of these. Treatment for depression is usually highly effective. The first antidepressant medication tried is successful at relieving depression in up to 70% of people; psychotherapy alone works in about half of people; and up to 70% of people with depression and dementia improve with electroconvulsive therapy.

A 2003 study from Johns Hopkins demonstrated the effectiveness of one antidepressant medication, sertraline (Zoloft), in the treatment of depression in Alzheimer's disease. People with Alzheimer's and depression were randomized to receive sertraline or a placebo.

The Role of Sleep

People with Alzheimer's disease suffer disproportionately from sleep disturbances. Helping the person get a good night's sleep can reduce daytime sleepiness and may reduce disruption of the circadian rhythm, a common problem in elderly people.

Sleep hygiene. Encouraging proper sleep practices—known as sleep hygiene—can promote restful sleep:

- Establish a consistent schedule for the person to go to bed and get up.
- If the person has trouble sleeping at night, limit napping to a short period in the early afternoon.
- Engage the person in exercise during the day that is appropriate to his or her level of functioning. Do not encourage strenuous exercise within three hours of bedtime.
- Discourage the person from watching television if he or she awakens at night.
- Don't allow food or beverages containing caffeine (including chocolate) within six hours of bedtime.
- Restrict the use of nicotine and other stimulants.
- Don't provide heavy meals or alcohol before bedtime.
- Limit fluid intake in the evening and encourage the person to empty his or her bladder before bedtime.
- Address factors that may interrupt sleep, such as household pets in the bedroom or traffic noise from outside.

Medication. Because cholinesterase inhibitors sometimes have a stimulant effect, try giving them in the mornings if the person is not sleeping well. In fact, there is some evidence that their use during the day can help reduce daytime sleepiness. The morning is also the best time to give diuretics ("water pills") because they can cause nighttime urination if given in the evening.

In addition, evaluate whether the person is taking other medications that can interfere with sleep. Such medications include beta-blockers (used in high blood pressure and heart disease), bronchodilators (used in lung disorders), corticosteroids (used in arthritis), H_2 blockers (used in acid reflux), and selegiline (used in Parkinson's disease)

Sleep apnea. More than 70% of people with dementia suffer from sleep apnea—temporary, recurrent breathing interruptions during sleep. The best treatment for sleep apnea is continuous positive airway pressure (CPAP), which involves the delivery of pressurized air through a nasal mask to keep the airways open. Although CPAP is highly effective and, in some cases, may even produce small improvements in cognitive functioning, coaxing a person with dementia to use it is often difficult or impossible.

Light therapy. Inadequate exposure to light can contribute to sundowning; in fact, there may be a link between seasonal affective disorder (SAD) and the condition. Getting the person outdoors during the day or placing the person's chair next to a sunny window can remedy this problem. Some experts suggest using light boxes in the winter, although it may be difficult to get the person to sit in front of a light box.

Melatonin. Although several small studies have found that melatonin may be effective in reducing insomnia and sundowning in people with Alzheimer's disease, others have not. This approach is not recommended.

Activity. Because inactivity can lead to sundowning, try to schedule an activity the person has always enjoyed—such as going to the store or meeting friends—on most afternoons.

Distraction. Sometimes, distracting the person can help control sundowning. Try engaging the person in a conversation about a topic he or she finds important, such as family, hobbies, or politics.

After 12 weeks, those receiving sertraline had less depression, fewer behavioral problems (such as agitation), and less disability (that is, they had less difficulty with daily functions such as grooming) than the placebo group. Also, the patients' caregivers experienced less distress. The rate of side effects, including dry mouth, upset stomach, decreased appetite, agitation, and tremor, was similar in the sertraline and placebo groups. However, the drug did not affect cognitive functioning.

Other commonly used antidepressants include paroxetine (Paxil), citalopram (Celexa), bupropion (Wellbutrin), and venlafaxine (Effexor). The effectiveness of these drugs and their side effects