Sleep and Parkinson's Disease

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Most patients with Parkinson's Disease will have problems with sleep at some point in their illness. The causes of sleep disturbances in PD are many and varied and often overlap. It is important to diagnose and treat these issues because poor sleep at night is a common contributor to poor motor function during the day as well as other problems such as excessive daytime sleepiness.

Unfortunately, it is often the case that a nonspecific complaint of difficulty sleeping results in a prescription for a sleeping pill, instead of an examination of what the specific sleep difficulties are. The patient and family members can help by making careful observations about issues pertaining to sleep, thus assisting the doctor in making more specific and useful suggestions.

There are some interventions that may be helpful with most sleep issues in PD. This includes eliminating caffeine in the afternoon and evening, having set hours for waking and sleeping, limiting naps to no more than 20-30 minutes and spending some time out doors in natural sunlight every day. These principles are called "good sleep hygiene".

In some cases, your primary care doctor or neurologist may recommend consultation with a doctor specializing in sleep medicine for more specific diagnosis and treatment of sleep difficulties. This may involve a polysomnogram or sleep study which involves sleeping while monitored so that changes in heart rate, movements and oxygen saturation can be measured.

Following is a brief discussion of some common sleep problems encountered in PD:

Wearing Off of Medications

One of the most common problems that occur with PD is wearing off of anti-parkinsonian medications. In early PD, most patients still have a fairly good supply of dopaminergic

neurons within the brain and medication is typically geared towards the daytime hours when they need additional dopaminergic medications to improve function. Since PD is progressive, the number of dopamine neurons continues to diminish over time and the patient often notices a return of symptoms, often in the evening and nighttime. This may result in difficulty getting ready for bed or getting comfortable for sleep. If the medication effects wear off during the night, the patient may be unable to turn over in bed or get up safely to use the bathroom. Profuse sweating is another symptom that can occur when the medication wears off during the night.

Most of these symptoms are treated fairly easily by medication adjustments such as additional levodopa or dopamine agonist during the evening hours and/or at bedtime. Some non-medication adaptations that may help include installing a bedrail or floor-to-ceiling pole to aid mobility while turning over or getting in and out of bed. Using satin sheets or nightwear to make movement easier once in bed may also be helpful.

<u>REM Sleep Behavior Disorder (RSBD)</u>

Rapid Eye Movement, or REM, sleep is the phase of sleep during which dreams occur. Normally, people are paralyzed during this phase, but in RSBD people appear to act out their dreams; sometimes just talking, but often thrashing around, yelling out or even attacking whomever is nearby. This can result in bruises or even serious injury to the patient or sleeping partner. RSBD is quite common in PD and may precede motor symptoms by years or even decades.

Symptoms may respond to small doses of clonazepam. However, like any sedating medication, this must be used cautiously to avoid falls or confusion during the night. In addition, patients with Obstructive Sleep Apnea should generally have this condition treated before sedation is used to avoid worsening the sleep apnea.

<u>Obstructive Sleep Apnea (OSA)</u>

Obstructive Sleep Apnea, or OSA, is a fairly common occurrence in people with PD. In this condition, airflow ceases periodically, often in association with snoring. The episodes of apnea are often accompanied by decreased levels of oxygen in the blood and other changes in metabolism. This can result in high blood pressure and increased risk of stroke and heart disease.

Sometimes, the treatment is as simple as adjusting sleep position. Often, however, the treatment consists of wearing a facemask or nasal device connected to a small machine that applies positive pressure to keep the airways open and facilitate airflow. This is called a CPAP machine. It may take some adjustments to get used to wearing the device during sleep, but the decreased risk factors and improved restful sleep is worth the effort and discomfort.

Early AM Waking

Many patients are able to fall asleep without difficulty but awaken frequently during the night or wake up early in the morning and are unable to go back to sleep. The patient may describe worrying or ruminating over concerns in his or her life. This often results from anxiety or even depression, perhaps due to changes in serotonin and norepinephrine levels in the brain in PD. For this reason, treatment of mood with a selective serotonin reuptake inhibitor (SSRI) may be useful.

There are other sleep difficulties that occur in PD as well. Careful observation of the circumstances surrounding sleep difficulty will enable your physician to diagnose and treat the problem, often in a more effective manner than by simply prescribing a sleeping pill.