Sleep Problems (Insomnia) in the Cancer Patient

Insomnia, or trouble sleeping, is a common problem for patients with cancer. Insomnia can also affect patients after being treated for cancer. Not all patients inform their healthcare provider about the problem, and many practitioners fail to ask about sleep. This likely occurs for one of several reasons: insomnia may be viewed as a normal reaction to the cancer diagnosis and treatment, insomnia may be viewed as a lesser priority than the cancer treatment, and practitioners may lack the knowledge to diagnose and treat this problem.

Insomnia can present as difficulty falling asleep, multiple awakenings during the night, or early morning awakenings with the inability to get back to sleep. Patients may have one or all of these complaints, but they must meet specific criteria in order to be classified as the insomnia syndrome as defined by the International Classification of Sleep Disorders. These criteria are: difficulty sleeping characterized by either (or both) 30 minutes or more to fall asleep, or more than 30 minutes of night time awakenings, with a ratio of total sleep time to time spent in bed less than 85%. The sleep disturbance must occur at least 3 nights per week, and cause significant impairment of daytime functioning or marked distress. Many patients may not fit these specific criteria, but suffer from the symptoms of insomnia, adversely affecting their quality of life. Insomnia can lead to fatigue, memory and concentration problems, mood disturbances and psychiatric disorders. Studies have suggested that insomnia may play a role in physical symptoms, shorter lifespan and immunosuppression. For these reasons, and to improve quality of life, patients should seek and be offered treatment for insomnia.

The potential causes of insomnia are many. A personal or family history of insomnia, the presence of a depression or an anxiety disorder, advanced age, and female gender all put a patient at higher risk of developing insomnia. Factors that may contribute to the development of insomnia include: certain medications, hospitalization, chemo, radiation, or hormonal therapy, pain, hot flashes, nausea and vomiting. Several additional factors, that can often be easily modified, include an irregular sleep schedule, excessive amount of time spent in bed, napping, engaging in sleep interfering activities in the bedroom, and unrealistic sleep expectations.

Treatment

How should insomnia be treated? Initially, the underlying cause of the insomnia should be addressed. Treatment of symptoms such as pain, nausea, depression and hot flashes, may improve insomnia symptoms. If the insomnia persists, patients may be treated with a combination of pharmacologic and psychologic therapy. The most commonly used treatment for patients with insomnia are hypnotic medications; the table below lists some of the more common agents and their side effects. These agents have disadvantages, including toxicity when combined with other sedating agents, residual next-day effects, risk of dependence, and rebound insomnia when stopped, and therefore should not be taken for longer than 2 to 4 weeks. These medications should not be mixed with other sedating agents or alcohol.

<table>
<thead>
<tr>
<th>Generic Name</th>
<th>Brand Name</th>
<th>Class of Drug</th>
<th>Most Common Side Effects</th>
<th>Usual Dose Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>clonazepam</td>
<td>Klonopin</td>
<td>Benzodiazepine/anticonvulsant</td>
<td>Drowsiness, behavior disturbances</td>
<td>0.5 - 2 mg</td>
</tr>
<tr>
<td>lorazepam</td>
<td>Ativan</td>
<td>Benzodiazepine/ anti-anxiety</td>
<td>Drowsiness, disorientation, amnesia, sedation</td>
<td>0.5 - 1 mg</td>
</tr>
<tr>
<td>alprazolam</td>
<td>Xanax</td>
<td>Benzodiazepine/ anti-anxiety</td>
<td>Drowsiness, light headedness, depression, dry mouth</td>
<td>0.25 - 1 mg</td>
</tr>
<tr>
<td>temazepam</td>
<td>Restoril</td>
<td>Benzodiazepine/hypnotic</td>
<td>Drowsiness, dizziness, lethargy</td>
<td>15 - 30 mg</td>
</tr>
</tbody>
</table>

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The same cautions should be taken with over the counter sleep aids. Many of these agents contain antihistamines, which are designed to treat allergies, not to treat insomnia. Antihistamines have the side effect of causing sleepiness, but may be less effective than prescription agents. The patient's healthcare practitioner can determine which medication, if any, would be best for them.

Several herbal products, available over the counter, are used to treat insomnia. These include melatonin, kava-kava and valerian. Herbal products and nutritional supplements are not required to undergo the same rigorous testing as prescription medications in order to meet government standards. Their long-term impact, side effects and possible interactions with other drugs or medical conditions are often not known. These medications should be discussed with your health care provider and used with extreme caution. Learn more about herbal supplements for insomnia at the National Center for Complementary and Alternative Medicine.

**Non-Pharmacologic Treatments**

There are several non-pharmacologic treatments for insomnia, which have been used in healthy patients, and may be useful for cancer patients. Studies have reported that patients treated benefited from these psychologic treatments, and that improved sleep continues up to 24 months after the initial treatment. These treatments include stimulus control therapy, sleep restriction procedures, relaxation therapy, cognitive therapy, and sleep hygiene education. Best results are obtained when a combination of these techniques is used.

Stimulus control therapy consists of reassociating bedtime and the bed / bedroom with sleep and establishing a regular sleep-wake cycle. This can be accomplished by developing a pre-bedtime ritual, going to bed only when sleepy, and when unable to fall asleep (or go back to sleep) after 20 minutes, leave the bedroom and return when sleepy. Maintain a regular wakeup time and try not to nap. When necessary, limit naps to 30 minutes and not after 3 pm. Use the bed for sleep and sexual activities only. Do not watch television, eat, or read in the bed. Sleep restriction procedures require the time spent in bed to be limited to the amount of time sleeping. Curtailing the time in bed causes mild sleep deprivation, leading to more efficient sleep.

Relaxation therapy includes muscle relaxation, biofeedback, imagery training, hypnosis, and thought stopping. Professionals, who specialize in instructing these techniques, may be available at local cancer centers or support communities, but patients can accomplish some of these techniques on their own. Patients may find deep breathing, stretching, meditation or prayer to be relaxing. A warm bath, warm glass of milk or cup of chamomile tea at bedtime can help to induce a restful state. Alcohol should be avoided, as it may cause initial tiredness, but then leads to fragmented sleep.

Cognitive therapy aims to identify and change dysfunctional beliefs and attitudes about sleep and insomnia, which may be contributing to the development of anxiety. These beliefs can include unrealistic sleep requirements, the role of sleep disturbance in daytime impairment, and the usual pattern of insomnia.

Sleep hygiene involves changing current health practices and environmental factors that may interfere with sleep. This includes avoiding caffeine and alcohol for 4 to 6 hours before bedtime, avoiding heavy or spicy meals before bedtime. Use the bed for sleep and sexual activity only, remove the TV from the bedroom. Keep the sleep environment dark, quiet, cool, and comfortable.
People with insomnia tend to look frequently at the clock - this may only serve to heighten anxiety and worsen the insomnia. Exercise regularly, as little as 20 minutes, three times a week, can promote better sleep, although this should not be done too close to bedtime.

Create a bedtime routine for yourself. This may involve reading, listening to relaxing music, drinking herbal tea (such as chamomile or lavender), a warm bath or just having some quiet time. When done regularly, this routine will signal to your brain that it is time to go to sleep.

Insomnia is recognized as a common complaint in patients with cancer and cancer survivors. Nevertheless, this problem has only recently received attention from cancer researchers. Studies are ongoing to determine the etiology of insomnia in this population and the appropriate treatment. While research continues, patients should understand the implications of insomnia, experiment with non-pharmacologic treatments, and discuss the problem with their healthcare provider.