The wintertime blues

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Although many of us have felt a little down while trudging to work in the near-darkness of a cold winter morning, some people actually suffer from clinical depression when winter sets in. Winter depression, a type of seasonal affective disorder (SAD), affects about 4% to 6% of the general population, and an additional 10% to 20% experience subclinical symptoms.[1]

Occurring more frequently in women than in men and with an average age of onset of 23 years, SAD is described not as a distinct mood disorder, but as a "specifier" for major depressive and bipolar disorders that have a seasonal pattern.[1] Winter depression, the more frequently recognized form, involves onset of major depressive episodes in the late fall or early winter with remissions in summer. Symptoms are those of atypical depression and may include increased sleep, increased appetite and food intake with carbohydrate craving and weight gain, irritability and a feeling of heaviness in the arms or legs. In summer depression, typical vegetative symptoms, such as insomnia and poor appetite, occur in late spring to early summer.[1]

This overlapping of the symptoms of SAD with other subtypes of depression as well as the occurrence of seasonal variations in mood in the general population have led to debate over SAD as a true diagnostic entity.[1,2] Furthermore, methodologic difficulties in assessing the efficacy of light therapy have led some investigators to question whether its benefits have been overestimated.[3] However, the increased incidence and severity of winter depression at higher latitudes and its responsiveness to light therapy have caused most experts to conclude that SAD is different from nonseasonal depression.[1,4]

Light therapy is typically initiated with a 10 000-lux light box directed downward toward the patient for 10 minutes daily, gradually increasing to 30–45 minutes.[1] Although some patients notice an immediate effect and others experience clinical benefit only after 6 weeks, most patients respond within 2 to 4 days.[1] Side effects, when present, may include photophobia, headache, fatigue, irritability and insomnia.[1,5] As with antidepressants, light therapy can precipitate mania in some patients and, as recent case reports suggest, can lead to an increased risk of suicide during a critical period early in therapy when improvements in drive exceed improvements in mood.[1,5,6]

Although the benefits of light therapy were first recognized in the 1980s, the mechanism of action remains controversial.[2,4,7,8] Melatonin may play a role, since bright light suppresses pineal melatonin secretion and administration of melatonin to SAD patients causes relapses during light therapy. Some investigators believe that light therapy increases the total number of photons striking the retina to achieve a required threshold for normal physiological and psychological functioning. Others argue that light therapy lengthens the winter photoperiod to simulate that of summer. Another important theory centres around the concept of circadian rhythms, which can be advanced or delayed by the timing of light exposure. Recently, a group of scientists have found that popliteal illumination (light directed at the back of the knees) has effects comparable to that of conventional light therapy.[9] This finding challenges the long-held belief that light therapy exerts its influence solely via neural pathways beginning at the retina and suggests that humans may be capable of "extraocular circadian phototransduction."[8,9]

Other therapies, including first-line antidepressants, electroconvulsive therapy and adjunctive cognitive therapy, can produce clinical improvement. In controlled trials, fluoxetine, propanolol and d-fenfluramine have been shown to be effective.[1,5] Other pharmacologic treatments and a clearer understanding of the efficacy and safety of combining light therapy with antidepressant medications await controlled trials.

References

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