Morning vs evening light treatment of patients with winter depression.


Abstract

BACKGROUND: According to the phase-shift hypothesis for winter depression, morning light (which causes a circadian phase advance) should be more antidepressant than evening light (which causes a delay). Although no studies have shown evening light to be more antidepressant than morning light, investigations have shown either no difference or morning light to be superior. The present study assesses these light-exposure schedules in both crossover and parallel-group comparisons.

METHODS: Fifty-one patients and 49 matched controls were studied for 6 weeks. After a prebaseline assessment and a light/dark and sleep/wake adaptation baseline week, subjects were exposed to bright light at either 6 to 8 AM or 7 to 9 PM for 2 weeks. After a week of withdrawal from light treatment, they were crossed over to the other light schedule. Dim-light melatonin onsets were obtained 7 times during the study to assess circadian phase position.

RESULTS: Morning light phase-advanced the dim-light melatonin onset and was more antidepressant than evening light, which phase-delayed it. These findings were statistically significant for both crossover and parallel-group comparisons. Dim-light melatonin onsets were generally delayed in the patients compared with the controls.

CONCLUSIONS: These results should help establish the importance of circadian (morning or evening) time of light exposure in the treatment of winter depression. We recommend that bright-light exposure be scheduled immediately on awakening in the treatment of most patients with seasonal affective disorder.

Comment in

Beginning to see the light. [Arch Gen Psychiatry. 1998]
A turning point for seasonal affective disorder and light therapy research? [Arch Gen Psychiatry. 1998]