Review: light therapy is an effective treatment for seasonal affective disorder


Is light therapy an effective therapy for seasonal affective disorder and non-seasonal depression?

**NOTES**

It is difficult to define an appropriate inactive placebo for phototherapy. Placebo usually included some degree of light exposure in an attempt to blind participants to treatment condition.

**Commentary**

Meta-analyses such as these suffer from a paucity of completed studies eligible for inclusion at a time when large trials are in progress or completed too late for consideration. The conclusions are therefore vulnerable to quick reversal. Of the set reported here, the result for bright light for winter depression is strongest, with seven of eight randomised controlled trials (RCTs) showing benefit over placebo controls.

The meta-analysis of bright light for non-seasonal depression, although also positive in its conclusions, was based on only three RCTs. Further data are now available, and a revised Cochrane review is in preparation. Interestingly, the initial Cochrane review found that the most successful studies combined light with medication, whereas the present meta-analysis found no such advantage. That conclusion would now be reversed, given recently completed studies that show expedited improvement with fewer residual symptoms under combination treatment. The Committee on Chronotherapeutics of the International Society for Affective Disorders has issued a white paper encouraging adoption of this approach.

The meta-analysis of dawn simulation for winter depression was based on four RCTs from a single centre (University of Washington, Seattle, US). Such an analysis cannot be conclusive, considering that centre and geographical differences cannot be assessed. Furthermore, the major study in the set—in which patients were also randomised into bright light therapy—found no bright light/placebo difference, which is a disturbing anomaly among the bright light studies. The good news is that a recent large trial in New York has found a significant 27% advantage in depression rating scale improvement under combination treatment relative to a non-photic placebo (low density negative air ions). Furthermore, participants randomised to bright light showed a 34% advantage over placebo, not significantly different from the dawn simulation result.

Light therapy is the first among somatic interventions for depression to have evolved from physiological research, based on principles of photoperiodism and the circadian timing system. The positive assessment by the American Psychiatric Association work group chaired by Golden paves the way for clinical implementation in outpatients and inpatients alike.

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