



P.2.f.013 Factors connected with the efficacy of total sleep deprivation with sleep phase advance in treatment-resistant depression

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Treatment-resistant depression (TRD)

TRD is defined as a depression in which a lack of adequate improvement is observed after two consecutive treatments with antidepressants of different pharmacological mechanisms, used in appropriate dosages and throughout an appropriate period of time.

An extensive study STAR*D showed that the remission percentage was 36.8%, 30.6%, 13.7%, 13.0%, respectively, for the first, second, third and fourth course of pharmacological treatment of depression (Rush et al. 2006).

The aim of study

The aim of the present study was to find possible clinical factors connected with the effectiveness of TSD with SPA during pharmacotherapy in TRD.

Patients studied

The study comprised 27 persons with TRD, according to the criteria above. All patients received antidepressants and mood stabilizing drugs. The most frequent antidepressant was venlafaxine (21 patients) and the most frequent mood stabilizing drug was lithium (18 patients).

Table 1. Characteristics of the studied sample

| Variable | Descriptive Statistics |
|---|------------------------|
| N (%) sample | 27 (100%) |
| Age (years) | 46 ± 14 |
| Gender | |
| Female | 18 (66,67%) |
| Male | 9 (33,33%) |
| Diagnosis | |
| Bipolar Disorder | 16 (59,26%) |
| Unipolar Disorder | 11 (40,74%) |
| Duration of illness (years) | 10±9 |
| Duration of depressive episode (months) | 7 ± 8 |

Results

The mean reduction in the HDRS on the 1st day was 43% and on the 14th day - 55%.

- On the 6th day after TRD, 13 patients (48%) met criteria for clinical improvement.
- The efficacy of TSD with SPA was better in:
 - patients with BD compared to UD (mean reduction on the 6th day 58 vs 36%, respectively)
 - patients below 45 years compared to those of 45 years or more (60 vs 39%)
 - patients with shorter duration of illness, below 10 years vs 10 years or more (55 vs 41%)
- No difference in efficacy was found in relation to gender or duration of depressive episode.

Total sleep deprivation (TSD) and sleep phase advance (SPA)

The first description of mood improvement after a sleepless night was presented by Pflug and Tölle (1971).

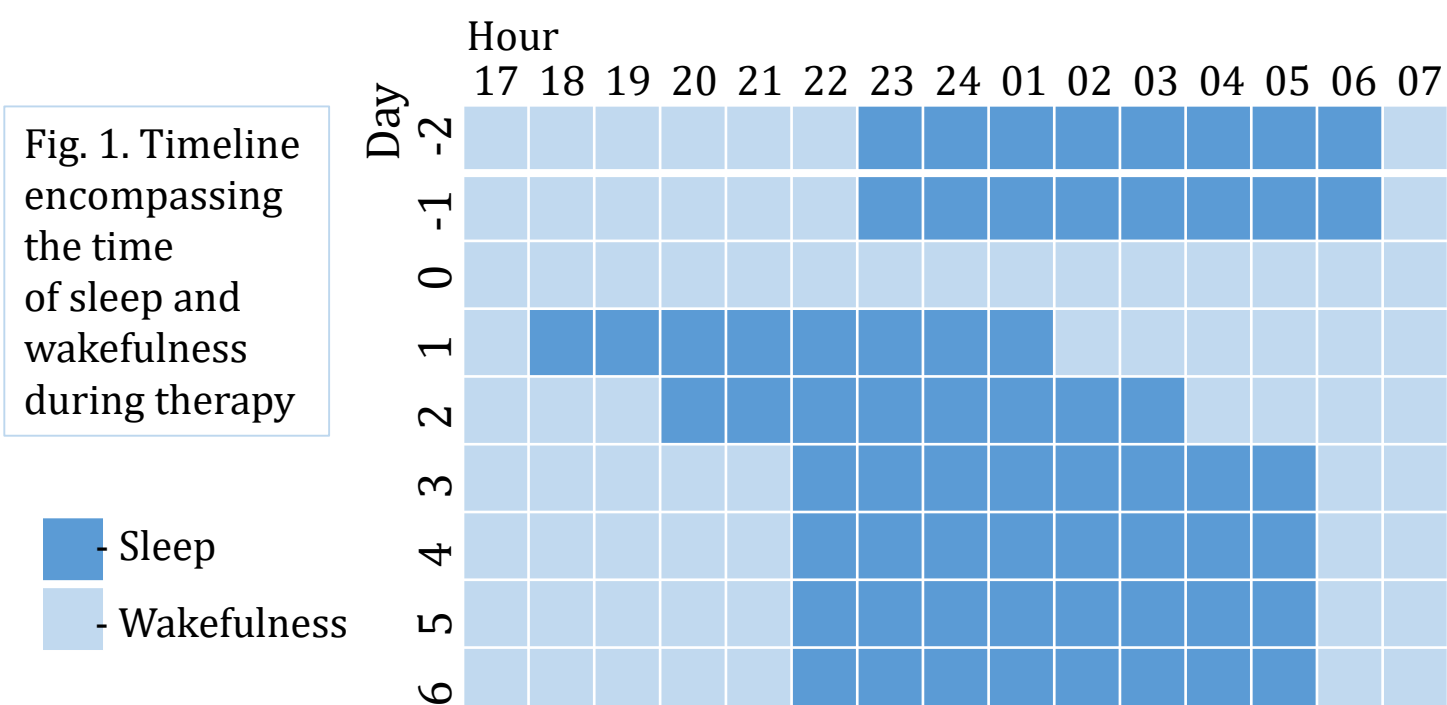
Wu and Bunney (1990) presented a meta-analysis which showed that 50–60% of depressive patients subjected to TSD obtained mood improvement. In 83% of the respondents, the effect disappeared after recovery sleep on following night.

Moving the sleep-wake rhythm forward seems to be correlated with an improvement after TSD and bright light therapy (BLT) in patients with bipolar depressive episode (Benedetti et al. 2007).

TSD and sleep phase advance (SPA) are chronotherapy methods, whose application in an ongoing pharmacological treatment of TRD can lead to significant improvement (Wirz-Justice et al. 2013, Dopierała and Rybakowski 2015).

Measures

We used 4-day procedure, which covered single TSD and 3 consecutive nights with SPA while maintaining pharmacotherapy.



Efficacy was evaluated using the 17-item Hamilton Depression Rating Scale (HDRS) on the day before the TSD and on 1st, 2nd, 3rd, 6th and 14th day after the TSD. In the whole group of patients the mean score on HDRS before TSD was 21.5 points. The assumed criterion for clinical improvement was a reduction of ≥50% in the HDRS score after 6 days.

Conclusions

Chronotherapy in the form of combined sleep deprivation and sleep phase advance can be an effective method of augmenting antidepressant and mood-stabilizing administration in TRD. Bipolar depression, younger age and shorter duration of illness may be connected with better efficacy of this integrated method.

References

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