ABSTRACT

BACKGROUND

Cyclic meditation (CM) is a technique in which yoga postures are interspersed with periods of supine rest in recurring cycles. Earlier studies have shown that CM is a potent stress reduction strategy with facilitated cognitive performance. Such mind-modifying practiced during the day may influence night – time sleep. Hence, the present study aimed at studying quality of sleep following the practice of CM and supine rest.

AIM AND OBJECTIVES

The present study was designed to

- To compile the ancient information on sleep from ancient Indian scriptures and allied literature.
- To study whether practicing cyclic meditation would influence the sleep structure in normal persons.
- To compare the effects of practicing cyclic meditation in the day time with the effects of supine rest practice, on the heart rate variability during sleep.

SUBJECTS AND DESIGN

Whole night polysomnography measures and the self-rating of sleep were studied on the night following a day in which the participants practised cyclic meditation twice (approximately 23 minutes each time). This was compared to another night when they had two, equal duration sessions of supine rest (SR) on the preceding day. Recordings were
made on thirty volunteers (all males, group mean age ± S.D., 26.3 ± 4.6 years), from F4, C4 and O2 electrode sites (EEG) referenced to linked earlobes, and bipolar electroculography (EOG) and electromyography (EMG) sites. The sessions were one day apart and the order of sessions was randomized. HRV was recorded (i) while awake and (ii) during six hours of sleep (based on EEG, EMG and EOG recordings). This was similarly recorded for the night's sleep following the day time practice of SR.

RESULTS
On the night following CM practice the percentage of slow wave sleep (SWS) was significantly more than the night following relaxation in SR, the percentage of rapid eye movement (REM) sleep was less, and the number of awakenings per hour was also less. Following CM the self rating of sleep based on visual analog scales showed an increase in the feeling that sleep was refreshing, an increase in feeling ‘good’ in the morning, an impression of an overall increase in sleep duration, a decrease in the degree to which sleep was influenced by being in a laboratory, as well as any associated discomfort. During the night following day time CM practice there were the following changes; a decrease in heart rate, LF power (n.u.), an increase in the HF power (n.u.) and, the total index of NN intervals, TINN ($p<0.001$), in many cases, comparing sleep following CM compared with sleep following SR). No change was seen on the night following SR.
CONCLUSION

Practicing cyclic meditation twice a day appeared to improve the objective and subjective quality of sleep on the following night and a shift towards parasympathetic dominance during sleep on the following night.