CONCLUSIONS
Based on the results of the present study, following may be concluded:

- *The locus coeruleus and surrounding in the dorsolateral pons is involved both in the generation and maintenance of REM sleep.*

- *Locus coeruleus neurons must cease firing for REM sleep generation.*

- *Locus coeruleus induced-reduction in REM sleep is mediated by NE acting on beta receptors.*

- *REM sleep frequency and REM sleep duration per episode were regulated by two different mechanisms; beta adrenergic mechanism is likely to control REM sleep frequency alpha adrenergic mechanism regulates REM sleep.*

- *There is possibly an optimal level of NE which may facilitate the generation of REM sleep.*