Annals of General Psychiatry

Poster presentation

Open Access

Activity of peptidases in the central nervous system in experimental models of deprivation of sleep

Bruna Visniauskas*, Vitor Oliveira, Sergio Tufik and Jair Ribeiro Chagas

Address: Department of Psycobiology / Federal University of Sγo Paulo, Sγo Paulo, Brazil
* Corresponding author

from International Society on Brain and Behaviour: 3rd International Congress on Brain and Behaviour
Thessaloniki, Greece. 28 November – 2 December 2007

Published: 17 April 2008

Annals of General Psychiatry 2008, **7**(Suppl 1):S142 doi:10.1186/1744-859X-7-S1-S142

This abstract is available from: http://www.annals-general-psychiatry.com/content/7/S1/S142

Background

Proteolitics enzymes are essential in the release and metabolism of neuropeptides. The neuropeptides are related in the regulation of the functions of the central nervous system (SNC), in particular in the regulation of the states of vigil and sleep. Currently, few studies on the expression and activity of proteolitics enzymes, EC 24,11, EC 24, 15 and EC 24. 16, they possess important paper in conditions of sleep deprivation.

Materials and methods

We establish methods of enzymatic determination in brain of rats (group privation sleep and control). The hydrolysis of fluorescence substrate was detected in espectofluorimetre adjusted for emission 320nm and excitement 420nm. The plate was kept in compartment (37. C). The increase of fluorescence due the hydrolysis was registered and the values corrected for UAF/min/mg of protein. The sequences of hydrolysis was analyzed in system HPLC.

Results

Important alterations in the expression and activity of enzymes EC 24,11, EC 24,15 and EC 24. 16. The alterations are specific of functional structures of the SNC having increase or reduction in different regions (hippocampus and striatum).

Conclusions

From these evidences we will go to determine level of genetic expression and which alterations can be taken to the increase of the proteolitic activity. Using the methodology reaction in chain of polimerase in real time.