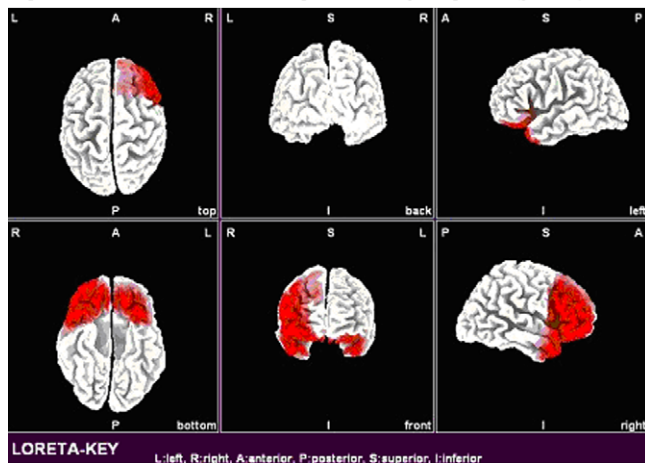


Also bilateral decrease in the alpha band over the occipital cortex including precuneus and posterior cingulate ( $p < 0.02$ ) was found.

**Conclusions:** The findings of our study confirmed hypothesis of frontal brain asymmetry with higher level of right hemisphere activation in panic disorder patients. These data are the first evidence of applying LORETA method to panic disorder studying.

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**Figure1: Increase of current density in beta frequency band ( $p < 0.01$ ) in PD**



## P0192

Reduced hippocampal N-Acetylaspartate in patients with panic disorder

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**Background and Aims:** Panic disorder (PD) is a common and debilitating anxiety disorder. Recent neuroanatomical theories of PD propose an extensive involvement of limbic system in pathophysiology of this condition. In fact, several structural and functional neuroimaging studies have shown changes in limbic structures, such as hippocampus in PD patients. Despite this, no prior studies have examined hippocampal neurochemistry in this disorder. The current study used proton magnetic resonance spectroscopy imaging (1H-MRSI) to examine possible neurochemical abnormalities in hippocampus in PD patients.

**Methods:** Twenty-five patients meeting the DSM-IV criteria for PD and eighteen psychiatrically healthy controls were investigated. The subjects were paired based on gender, age, years of education, handedness, and socioeconomic level. N-acetylaspartate (NAA, a putative marker of neuronal viability) and choline (Cho, involved in the synthesis and degradation of cell membranes) levels were quantified relative to creatine (Cr, which is thought to be relatively stable among individuals and in most brain areas) in both right and left hippocampus.

**Results:** Compared with controls, panic patients demonstrated significantly lower NAA/Cr in the left hippocampus. No other difference was detected.

**Conclusions:** This result is consistent with the previous findings of hippocampal alterations in PD and provides the first neurochemical suggesting of involvement of this structure in the disorder.

## Poster Session III: Sleep Disorders

### P0193

The relation between insomnia and chronic fatigue syndrome

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The current study investigated the possible association between Chronic Fatigue Syndrome (CFS) and insomnia. A non-clinical sample of 450 volunteer Kuwaiti male and female college students was recruited. Their ages ranged from 18 to 39 years. They completed the Arabic Scale of CFS (ASCFS) and the Arabic Scale of Insomnia (ASI). Both have good reliability and validity. Women had significantly a higher mean score on the ASCFS than did their male counterparts. All the correlations between the total scores of the ASCFS and the ASI, consisting of 12 items and the total scores were statistically significant ( $p < 0.01$ ) in men and women. However, the correlations between the ASI items belonging to the factor of “Consequences of insomnia” were higher than those with the items belonging to the factor “Difficulty initiating and maintaining sleep”. The multiple stepwise regression indicated that the best insomnia complaint to predict CFS was the item “My interrupted sleep affects my work performance”. This item explained approximately 25% of variance in CFS scores. It was concluded that CFS and insomnia share specific common elements.

**Keywords:** Insomnia, Arabic Scale of Chronic Fatigue Syndrome (ASCFS), Arabic Scale of Insomnia (ASI), Kuwait.

### P0194

Sleep pattern in nurses with different shifts

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Sleep is a complex biological rhythm which is complex related to other biologicals rhythm and functions. The cycle of sleep and wakefulness might be the most apparent biological rhythm. Nightwork and alteration of working hours are two great stress producing factors which cause disharmony of biological rhythms. Insomnic breaking of social relations and illnesses.

**Method:** To get the necessary information we used of a questionnaire contain 21 question. To get the demographic and sleeping pattern information, two kinds of questions have been considered. 12 questions were about demographic characteristics, 13 questions were about sleep disorders and pattern of personnel in different shifts. The samples were 764 nurses personnel.

**Results:** The research results showed that there is a meaningful difference between the rate of sleep disorders of those who have fixed alternative shifts (one month in the morning, one month in the afternoon, one month at night) with those who have inverse alternative shifts (night and morning).

**Conclusion:** We suggest to hospital directors to review their schedules and consider the following points as much as possible.

- use the fast alternative system (2 morning shifts, 2 afternoon shifts, 2 night shifts and 2 days off).