

- night work hours should be reduced from 12 hours to 8 hours to reduce the stress and sideeffects of work.
- the shifts should be clockwise(morning-afternoon-night) and not anticlockwise (morning-night-afternoon).

### P0195

Recurrent hypersomnia – Diagnostic difficulties

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Recurrent hypersomnia represents a rare pathology, with an etiology difficult to identify. This paper presents a female teenager's case, in the 5th hypersomnia episode, which lasts for one week, being awakened by her parents to eat and go to the toilet. The first episode occurred in December, when she was diagnosed with "Encephalitic reaction with cerebral edema and confusive syndrome. Psychoorganic syndrome. Respiratory virosis" and she was treated with cerebral depletive drugs. The following episodes of hypersomnia occurred at regulate periods of time of 3 weeks, remitted without medication; between the episodes the teenager's condition was without any somatic, cognitive alteration.

All the investigations, including cerebral RMN, were normal, except for EEG, indicating a slow course in all the derivations. The anamnesis information indicating that the hypersomnia episodes were followed by the menstrual cycle, together with the ecography discovery of a right ovarian cyst of 4/4 cm, determined us to introduce oral contraceptives treatment, which lead to the disappearance of the hypersomnia episodes.

### P0196

Sleep quality in adolescents with insulin dependent diabetes mellitus

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**Background and Aims:** The incidence of IDDM is increasing in the world. In regard to increasing prevalence of IDDM and probable introduction between IDDM and sleep quality, it was designed this study to evaluate the sleep quality in adolescents.

**Methods:** This case-control study was done in Isfahan Behavioral Sciences Research Center and Endocrine Research Center. The 120 cases were selected from adolescents (11-18 year old) with IDDM referral to Isfahan Endocrine Research Center. Control group were 120 and matched with cases. The criteria for diagnosing diabetes were Classification and Diagnose Committee Criteria. PSQI was used to evaluate the quality of sleep. Data was analyzed with t-test, Pierson coefficient and ANOVA.

**Results:** The mean age in cases and controls was 14.5±2.2 and 14.3±2.3. 46.7% of cases had family history of diabetes, whereas, it was 5.8% in controls. The mean of FBS in cases was 159±68 mg/dl. The mean of HbA1c was 8.8±1.99. 75.8% of diabetic adolescents were PSQI score over 5 (cases=7.3±2.3 & controls=5.7±2.6. p<0.001). Some sleep disturbances: sleep onset latency, poor sleep efficiency and daytime dysfunction are significantly more in diabetic adolescents than controls. There is not any relation between PSQI and BMI. But there was a direct relation between PSQI and HbA1c by regression analysis.

**Discussion:** There is poor sleep in adolescents with IDDM. IDDM causes sleep disturbances probably by some different ways. So, it is very important to consider the quality of sleep in IDDM and manage probable sleep problem.

### P0197

Correlation of insomnia with Cytokine removal in patients undergoing chronic hemodialysis

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Sleep disturbances are usually the outcome of a complex interplay between intrinsic factors and environmental influences. Cytokines are essential in the coordination of central nervous and immune system communication. Interleukin-1β and interleukin-6 in particular play crucial role in sleep regulation. In vitro studies have demonstrated that high-flux membranes avidly remove cytokines. Aim of this study was to investigate the correlation of insomnia with the aforementioned cytokines and the influence of mode of haemodialysis on sleep disorders in dialysis patients. Using Athens Insomnia Scale (AIS), sleeping profile of 35 subjects (23 male, 12 female, mean age 56.2±13.6 years) was evaluated. Twenty five patients underwent hemodialysis (HD) and the rest hemofiltration (HF) using high-flux membrane. No significant difference was observed between the two groups with respect to age, sex, family status, education, self-esteem, coffee and alcohol consumption, psychiatric history, hemodialysis time and laboratory parameters. HF group demonstrated significantly higher AIS scores compared to HD (12.4±6.5 and 4.3±4.7 respectively, p<0.001). The acute effect of hemodialysis on serum cytokine concentrations revealed a slight increase of post-dialysis cytokine levels in HD group (9.8±2.52 to 9.92±6.06 for IL1β and 11.02±4.83 to 11.3±3.78pg/dl for IL6 respectively), but a significant decrease in HF group (from 11.88±3.57 to 8.89±2.07 for IL1β and from 11.66±5.97 to 6.58±4.44pg/dl for IL6 respectively, p<0.05). Moreover, significant correlation has been found between AIS score and IL1β levels of all patients (r=0.42, p<0.01). In conclusion, it seems that the mode of hemodialysis, by affecting cytokine kinetics, could influence sleep quality and quantity in such patients.

### P0198

Comparison of the effects of Eszopiclone and Zolpidem on delta power and NREM sleep in the adult guinea pig

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**Background and Aims:** The guinea pig is a naturally-occurring animal model of insomnia. Therefore, it was of interest to determine, in this species, the effects on sleep and waking states of different hypnotic substances.

**Methods:** Accordingly, in the chronically-implanted adult and aged guinea pigs, we examined changes in NREM sleep, REM sleep, and wakefulness following the administration of eszopiclone and zolpidem.

**Results:** Compared with naturally occurring sleep and wakefulness, the effects of eszopiclone were characterized by the induction of NREM sleep that occurred with a short latency, as well as long duration episodes of NREM sleep that were accompanied by an increase