

age are also examined. Patterns of infant sleep within these groups are also explored.

**Methods:** In the study, pregnant women were screened for depressive symptoms using the Edinburgh Postnatal Depression Scale (EPDS), and their symptom severity was assessed longitudinally with the Beck Depression Inventory. Women were divided into 6 risk groups: low/stable, intermediate, and high/increasing depression based upon longitudinal symptom severity and medication use. The infant neuroendocrine system was examined using cord blood ACTH and cortisol. These infants were examined at 2 weeks of age using Neonatal Intensive Care Unit Neurobehavioral Scale (NNS).

**Results:** Infants born to women of the high/increasing depression group had significant elevations in cord blood ACTH at birth. On NNS examination at two weeks, these infants were more hypotonic and less attentive. They habituated to stimuli more quickly and had fewer visual signs and higher skin reactivity. Infants born to women using antidepressants had further elevations in cord blood ACTH, and were found to be more tremulous and excitable during NNS examination. Infants born to women with higher depression severity demonstrating aberrations in their early sleep patterns and sleep entrainment.

**Conclusions:** Maternal depression risk and antidepressant use may construe a different developmental pathway for development of the infant neuroendocrine axis which may impact early neonatal neurologic development.

### P0319

Cortisol as predictor in major depression

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**Background:** Mild hypercortisolemia is a biological marker found in a subset of patients with major depression. The cause is supposed to be a malfunction in the corticosteroid receptor. Long standing cortisol excess is toxic to nerve cells and especially the hippocampus seem vulnerable to hypercortisolemia. The well known memory and concentration difficulties found in stress and depressive illnesses are supposed to be partly caused by deterioration of the function of the hippocampus.

**Methods:** The cortisol awakening response(CAR) were measured in saliva by repeated saliva specimens (awakening, 20 min and 60 minutes after awakening) in patient participating in a double blind study using a fixed dosage of sertraline and randomised to either dim or bright light treatment. Cortisol measurements were made before medication and light treatment started. The hypothesis, stated in the protocol, was that saliva cortisol would have a predictive validity of the short term depression outcome.

**Results:** A statistically significant increase in cortisol levels were found during the first hour after awakening. The area under the curve (AUC) from the CAR results was calculated and was found to have a statistically significant predictive validity for depression scores and remission at endpoint. Thus a statistically significant higher proportion of patient with low CAR values were in remission compared to patient with high CAR values. This effect was predominantly seen in the bright light treated group.

**Conclusion:** Patients with a high CAR were less likely to attain remission at endpoint. The high CAR seemed to block the effect of light treatment.

### P0320

Polyunsaturated fatty acids and depression: Preliminary results of a randomized double blind placebo controlled study

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Many scientific articles suppose a role of omega-3 polyunsaturated fatty acids (PUFA) - particularly eicosapentaenoic acid (EPA; 20:5, n-3) and docosahexaenoic acid (DHA; 22:6, n-3) - as an adjuvant therapy of depression.

We are carrying out a randomized double-blind placebo controlled study - approved by Ethic Committee - to evaluate the adjuvant effect of EPA and DHA in the therapy with paroxetine mesylate, a selective serotonin re-uptake inhibitor (SSRI), in unipolar mood depression and recurrent depression.

In the first phase (T0 baseline), the authors enrolled 20 patients, male or female, between 20 and 60 years old, affected by major depression or recurrent depression according to DSM IV TR. We excluded anticoagulant therapies, pregnancy, concomitant treatment with other drugs and presence of psychotic disorders. The initial plasmatic fatty acid level of cohort of 55 subjects (20 patients and 35 controls) has been evaluated by gas chromatography.

Our preliminary results indicate a general alteration of serum fatty acid levels in depressed subjects compared to healthy subjects, with a high significant statistical difference between the two groups. This difference may help in defining a biological indicator of mood depression. A remarkable different serum fatty acid concentration was still observed, after adjustments regarding diet.

Parker G, Gibson NA, Brotchie H, Heruc G, Rees AM, Hadzi-Pavlovic D. Omega-3 fatty acids and mood disorders. *Am J Psychiatry*. 2006 Jun;163(6):969-78.

### P0321

Association of 5HTTLPR with factors related to risk of suicide

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**Introduction:** The 5HTTLPR polymorphism of the serotonin transporter gene has been found to be significantly associated with suicide and it has also been described that suicidality is associated with increased impulsiveness, aggression and hopelessness. The aim of our study was to investigate the possible association of affective temperaments, hopelessness, aggression, impulsiveness and the 5HTTLPR s allele in a psychiatrically healthy population who have never attempted suicide.

**Methods:** 135 psychiatrically healthy women participated in the study. All participants completed the Buss-Durkee Hostility Inventory (BDHI), the Barratt Impulsiveness Scale (BIS-11), the Beck Hopelessness Scale and the Temperament Evaluation of Memphis, Pisa, Paris and San Diego questionnaire (TEMPS-A). 5HTTLPR genotypes