

**Background:** Bipolar Disorder (BD) is associated with impairment in emotional self-regulation and verbal working memory. Lamotrigine (LTG) is effective in the clinical management of BD.

**Objective:** To investigate whether treatment with LTG is coupled with altered function within neural circuits subserving emotional processing and verbal working memory, in a BDI sample.

**Method:** Functional Magnetic Resonance Imaging (MRI) was used to explore blood oxygenation level-dependent (BOLD) response across the whole brain in 12 stable BDI patients at baseline and following 12 weeks of LGT monotherapy. Stimuli were presented in a block-design while individuals performed a verbal working memory (N-back sequential letter) task and in an event-related fashion during an angry facial affect recognition task. Data was acquired using a 1.5-Tesla MRI scanner and analysed using SPM2. Group activation maps were generated for each task and for the drug-free and post-medication condition. A threshold of  $p < 0.001$  was used. Effect of LGT on brain activation during tasks was explored using a random-effects, within-group comparison.

**Results:** In both tasks, LGT monotherapy was associated with increased BOLD signal when compared to baseline in a number of brain regions, mostly within the prefrontal cortex and cingulate gyrus. All foci of increased activation with LTG monotherapy were observed within cortical regions normally engaged in verbal working memory and facial affect processing.

**Conclusions:** LTG monotherapy in BD patients may enhance cortical function within neural circuits involved in memory and emotional self-regulation.

**Declaration:** This study was supported by an unrestricted GlaxoSmithKline grant.

## P110

Transition from immediate-release methylphenidate (ir-mph) to extended-release methylphenidate (OROS<sup>®</sup>-MPH) improves quality of life of patients with adhd -a naturalistic study

L. Hargarter<sup>1</sup>, M. Gerwe<sup>1</sup>, J. Czekalla<sup>1</sup>, F. Matzejat<sup>2</sup>. <sup>1</sup> *Medical and Scientific Affairs, Janssen-Cilag GmbH, Neuss, Germany* <sup>2</sup> *Department of Child and Adolescent Psychiatry, Philipps-University, Marburg, Germany*

**Objectives:** To investigate the effectiveness, tolerability, functionality and quality of life (QoL) under naturalistic conditions of once daily extended release methylphenidate (OROS<sup>®</sup>-MPH) in children and adolescents with attention-deficit/hyperactivity-disorder (ADHD), who had previously been treated with IR-MPH.

**Methods:** Interim analysis of an open-label, prospective, multicenter observational study (42603-ATT-4001) in children and adolescents aged 6-18 years with ADHD (DSM-VI). After transition patients were treated with OROS<sup>®</sup>-MPH (CONCERTA<sup>®</sup>) in flexible doses for 3 months. Primary documentation parameters were change in IOWA Conners' parent rating scale, C-GAS, and inventory for the assessment of quality of life (ILK). Statistical analyses based on ITT population (LOCF, Wilcoxon-test for dependent samples).

**Results:** Data from 296 patients (mean age 10.4±2.5 years; 85% male) were documented. There was a marked reduction in symptomatology from 29±11 to 19±11 points at endpoint on the IOWA Connor's parents rating scale ( $p < 0.0001$ ). QoL significantly improved from 17±4 to 20±4 points on the ILK parent rating scale ( $p < 0.0001$ ). Functionality showed a significant improvement of 12±14 points in C-GAS ( $p < 0.0001$ ). 19.3% of the patients had at least one adverse event (AE). In 2 patients serious AE were

documented and were rated as unrelated to OROS<sup>®</sup>-MPH. Most frequent AEs were insomnia (5.7%) and nervousness (2.7%). Tolerability after transition to OROS<sup>®</sup>-MPH was rated as "good" or "very good" by 85% of the parents.

**Conclusion:** In this naturalistic study the transition to OROS<sup>®</sup>-MPH led to a significant improvement in clinical symptomatology, functionality and quality of life in patients with ADHD. OROS<sup>®</sup>-MPH showed to be safe and well tolerated.

## P111

Teenagers suicidal behavior and psychosocial factors

A. Jaras, V. Arbaciauskas, D. Gudiene, O. Jankuviene, B. Burba, V. Grigaliuniene. *Department of Psychiatry, Kaunas Medical University, Kaunas, Lithuania*

**Objective:** Suicidal behavior becomes more and more actual problem in many countries. Lithuania is known as a country where suicides rate, especially among young people, is the highest in Europe.

The goal of this research was to establish the coherence between family, psychosocial characteristics and teenagers' suicide behavior.

**Methods:** Two groups of teenagers from 14 to 17 were researched: the analyzed group (N=109) and the control group (N=218). To evaluate anamnesis, psychosocial factors of the researched teenagers, structural questionnaire, concluded by the authors was presented.

Seeking to establish the coherence between psychosocial factors and suicide behavior, the comparisons were made between the frequencies of this factor among 14 – 17 year old teenagers, having no suicide anamnesis and the teenagers who have tried to commit a suicide.

**Results:** The data analysis proved the statistically reliable evidence that in analyzed group both male and female teenagers, who have tried to commit a suicide, live in not full families ( $p < 0.001$ ). The frequent behavior in such families is addiction of both or one of the parents to alcohol ( $p < 0.001$ ); physical punishment is not an exception ( $p < 0.001$ ). The teenagers who have tried to commit a suicide indicated that they more often than the teenagers in the control group fell badly or even very badly among their contemporaries ( $p < 0.001$ ) and most of their time they spend alone ( $p < 0.001$ ).

**Conclusions:** According to the results, the psychosocial factors and teenagers suicidal behavior are related, but only they themselves can't predetermine the suicide.

## P112

Executive function in chinese children with bipolar disorder

W.D. Ji<sup>1</sup>, H.F. Chang<sup>1,2</sup>, Y. Li<sup>1</sup>, B.Y. Guo<sup>3</sup>, D.L. Yang<sup>1</sup>. <sup>1</sup> *Changning Mental Health Center, Shanghai, China* <sup>2</sup> *The Affiliated Hospital of Bio-X Center of Shanghai Jiaotong University, Shanghai, China* <sup>3</sup> *Jiading Mental Health Center, Shanghai, China*

**Background and aims:** Impaired executive function has been proposed as a trait marker for adult bipolar disorder. However, similar impairments in children bipolar disorder have not been yet documented. Here, we assessed executive function in 21 children and adolescents with bipolar disorder.

**Methods:** 21 children and adolescents with bipolar disorder and 21 demographically matched healthy participants completed a standardized WCST test.

**Results:** The operation result in children with bipolar disorder did not differ from that in controls. Severity of mood symptomatology was not associated with WCST performance in any bipolar subtype.

**Conclusions:** Findings suggest that executive function in children bipolar disorder are not similar to those seen in the adult form of the illness. Compares with the adult, the children bipolar disorder possibly may have different pathogenesis.

### P113

Ziprasidone does not exacerbate mania or worsen depression during treatment of bipolar mania: An analysis of pooled clinical trial data

I. Lombardo, F. Rappard, A. Jina, F. Mandel. *Pfizer Inc., New York, NY, USA*

In case reports of patients with bipolar disorder, atypical antipsychotic drugs are often associated with an exacerbation of manic symptoms. To determine whether the atypical antipsychotic drug ziprasidone is associated with an exacerbation of manic symptoms or a worsening of depressive symptoms when used to treat bipolar mania, we analyzed data pooled from 2 similarly designed randomized, placebo-controlled trials of ziprasidone monotherapy in the treatment of bipolar mania (ziprasidone: n=268, placebo: n=131). Exacerbation of mania was defined as CGI-S  $\geq 5$  and HAM-D increase from baseline to endpoint  $\leq 25\%$ , and worsening of depression was defined as HAM-D at endpoint  $\geq 15$  and HAM-D change from baseline to endpoint  $\geq 20\%$ . A significantly smaller proportion of subjects experienced an exacerbation of mania in the ziprasidone group than in the placebo group (6.7% vs 17.6%,  $P < 0.001$ ). An analysis of dysphoric/nondysphoric and psychotic/nonpsychotic subpopulations showed significantly smaller proportions of ziprasidone subjects with an exacerbation of mania than placebo subjects in all 4 subsets ( $P < 0.05$ ). The proportion of subjects experiencing a worsening of depression was smaller in the ziprasidone group than in the placebo group (1.9% vs 4.6%, n.s.). These results strongly suggest that ziprasidone causes neither exacerbation of mania nor worsening of depression in patients with acute bipolar mania. Future research will address this issue in patients with bipolar depression.

### P114

Is there a coleration between alexithymia and frontal lobe dysfunction?

D. Kountouris, A. Bougioukou. *Neurological Diagnostic Center, Athens, Greece*

**Background and aims:** According to Sifneos criteria alexithymia is the disability for one person to express and identify emotions. In this study we investigate the possibility of a cerebral localization for alexithymia.

**Methods:** We examined 12 patients, 6 men and 6 women, with characteristic alexithymia symptomatology by a complete neurological, neurophysiological (24-hours EEG registration) control and biochemical tests.

We recorded. Compared between them and estimated the results according to a healthy population.

**Results:** In all alexithymic patients there were certified significant pathological neurophysiological findings, mostly dysrhythmic epileptiform unloadings in frontal lobe ambilateral. In 9 of 12 patients there were increased amounts of prolactine and homocysteine. All of the patients with alexithymia had limited REM stage during the hypnogram.

**Conclusions:** The results show clearly a cerebral dysfunction of frontal lobe in patients with alexithymia. This fact and the fact that prolactine and homocysteine were increased, can inform us that we have the possibility of an organic dysfunction with genetic disposition.

### P115

ADHD bibliometric study over the last 25 years (i): Analysis of the production and dispersion of the scientific literature

F. Lopez-Munoz<sup>1</sup>, F.J. Quintero-Gutierrez<sup>2</sup>, P. Garcia-Garcia<sup>1</sup>, C. Alamo<sup>1</sup>. <sup>1</sup> *Departamento de Farmacologia, Facultad de Medicina, Universidad de Alcala, Madrid, Spain* <sup>2</sup> *Servicio de Psiquiatria, Fundacion Jimenez Diaz, Universidad Autonoma de Madrid, Madrid, Spain*

In the last years, attention-deficit/hyperactivity disorder (ADHD) is considered an emergent pathological entity. For this reason, a bibliometric analysis regarding scientific publications related to ADHD and its pharmacological treatment has been considered out, as well as its evolution during 1980-2005 period.

Using the EMBASE and MEDLINE database, we selected those documents whose title included the descriptors attention deficit hyperactivity disorder, attention deficit disorder, ADHD y ADD.

A total of 5269 original documents were obtained, and 2325 of these documents are corresponding to some aspects about drugs therapy. As bibliometric indicators of the production and dispersion, Pricés and Bradford's Laws, were applied, respectively. Our data confirm the Pricé Law since scientific production about ADHD have an exponential growth (correlation coefficient  $r=0.9859$ , vs.  $r=0.9011$  after a linear adjustment), without to estimate a saturation point. The more studied drugs are methylphenidate (1251 documents), mixed amphetamine salts (250), atomoxetine (204) and dexamphetamine (143). The division into Bradford's areas shows a central nucleus occupied by Journal of the American Academy of Child and Adolescent Psychiatry (500 articles) exclusively. Other papers are distributed into 10 areas with a mean of 505.4 documents. A total of 886 different journals were used. The highest participation index (PaI) corresponds to Journal of Attention Disorders (PaI=64.96). The more frequently used support journals have a high impact factors (IF) (12 of the 20 first have a  $IF > 2$ )

### P116

ADHD bibliometric study over the last 25 years (ii): correlation with social-health parameters

F. Lopez-Munoz<sup>1</sup>, F.J. Quintero-Gutierrez<sup>2</sup>, P. Garcia-Garcia<sup>1</sup>, C. Alamo<sup>1</sup>. <sup>1</sup> *Departamento de Farmacologia, Facultad de Medicina, Universidad de Alcala, Madrid, Spain* <sup>2</sup> *Servicio de Psiquiatria, Fundacion Jimenez Diaz, Universidad Autonoma de Madrid, Madrid, Spain*

In the last years, attention deficit hyperactivity disorder (ADHD) is considered an emergent pathological entity. For this reason, a bibliometric analysis regarding scientific publications related to ADHD and its pharmacological treatment has been considered out, as well as its evolution during 1980-2005 period.

Using the EMBASE and MEDLINE database, we selected those documents whose title included the descriptors attention deficit hyperactivity disorder, attention deficit disorder, ADHD y ADD, and that included the country of origin of the work. Altogether, 4423 original documents were obtained. In this social-health analysis, the