

References

- [1]. Wigg K, Couto J, Feng Y, Crosbie J, Anderson B, Cate-Carter TD, Tannock R, Lovett MW, Humphries T, Kennedy JL, Ickowicz A, Pathare T, Roberts W, Malone M, Schachar R, Barr CL. 2005. Investigation of the relationship of attention deficit hyperactivity disorder to the EKN1 gene on chromosome 15q21. *Scientific Studies of Reading* 9(3): 261-283.
- [2]. Wigg KG, Couto JM, Feng Y, Anderson B, Cate-Carter TD, Macciardi F, Tannock R, Lovett MW, Humphries TW, Barr CL. 2004. Support for EKN1 as the susceptibility locus for dyslexia on 15q21. *Mol Psychiatry* 13: 13.

S21.02

Adult ADHD and the Circadian rhythm

J.J.S. Kooij, M.M. Van Veen, A.M. Boonstra. *PsyQ, Psycho-Medical Programs, Program Adult ADHD, Den Haag, The Netherlands*

Background: Children with ADHD may have chronic sleeping problems, associated with circadian rhythm disturbances. Little is known about sleep in adults with ADHD.

Methods: We studied the prevalence and type of sleeping problems in 120 adults with ADHD using an interview questionnaire.

Results: 78% of the 120 adults with ADHD had difficulty to go to bed in time (between 1 and 3 am). Almost 70% reported sleep onset problems, more than 50% had difficulty sleeping through. Almost 70% had difficulty getting up in the morning and 62% felt sleepy during the day. In more than 60% these sleeping problems had been there all their lives. These results are very similar to earlier data presented by Dodson (Dodson, 1999). Several explanations for these sleeping problems may be considered (Kooij ea, 2001; Oosterloo ea, 2006; Boonstra ea, 2007). However, the frequently occurring sleeping pattern of being a 'nightowl', with restless sleep and difficulty getting up in the morning, may be associated with the delayed sleep phase syndrome, as was recently shown in children with ADHD and sleep onset problems (van der Heijden ea, 2006; van der Heijden ea, 2005; Weiss ea, 2006). We currently study the circadian rhythm in adults by measuring the Dim Light Melatonin Onset (DLMO) in saliva in ADHD patients with sleep onset problems (ADHD+SO), compared to ADHD patients without sleep onset problems (ADHD-SO).

Conclusions: About 70% of adults with ADHD have sleep onset problems compatible with a delayed sleep phase pattern. First data of DLMO in adult ADHD patients with and without sleep onset problems will be discussed.

References

- [1]. Dodson, W. W. (1999). The prevalence and treatment of sleep disorders in adults with Attention Deficit / Hyperactivity Disorder: Presented at the American Psychiatric Association Annual Convention, Washington D.C.
- [2]. Boonstra, A.M., Kooij, J.J.S., Oosterlaan, J., Sergeant, J.A., Buitelaar, J.K. & van Someren, E.J.W. Hyperactive night and day? Actigraphy studies in adult ADHD: a baseline comparison and the effect of methylphenidate. In press, 2007.
- [3]. Kooij, J. J. S., Middelkoop, H. A. M., Van Gils, K., & Buitelaar, J. K. (2001). The effect of stimulants on nocturnal motor activity and sleep quality in adults with ADHD: An open-label case-control study. *Journal of Clinical Psychiatry*, 62(12), 952-956.
- [4]. Oosterloo, M., Lammers, G. J., Overeem, S., de Noord, I., & Kooij, J. J. S. (2006). Possible confusion between primary

hypersomnia and adult attention-deficit/hyperactivity disorder. *Psychiatry Research*, 143(2-3), 293-297.

[5]. van der Heijden, K. B., Smits, M. G., & Gunning, W. B. (2006). Sleep hygiene and actigraphically evaluated sleep characteristics in children with ADHD and chronic sleep onset insomnia. *Journal of Sleep Research*, 15(1), 55-62.

[6]. van der Heijden, K. B., Smits, M. G., Van Someren, E. J., & Gunning, W. B. (2005). Idiopathic chronic sleep onset insomnia in attention-deficit/hyperactivity disorder: a circadian rhythm sleep disorder. *Chronobiology International*, 22(3), 559-570.

[7]. Weiss, M. D., Wasdell, M. B., Bomben, M. M., Rea, K. J., & Freeman, R. D. (2006). Sleep hygiene and melatonin treatment for children and adolescents with ADHD and initial insomnia. *Journal of the American Academy of Child & Adolescent Psychiatry*, 45(5), 512-519.

S21.03

The prevalence of ADHD in adults with bipolar II disorder

M.B.J. Blom. *Department of Mood Disorders, Parnassia Psychiatric Institute, Den Haag, The Netherlands*

Background: Bipolar II disorder and ADHD share several clinical characteristics. Identifying patients with either Bipolar II or ADHD is therefore not an easy task. Little is known about the co-occurrence of both disorders and its treatment.

Methods: In a large outpatient clinic for Mood Disorders all patients with a bipolar II disorder were asked to fill in the ADHD rating scale, a screening instrument for adult ADHD. Patients who were above threshold were asked to participate in further diagnostics. This included a semi-structured interview for adult ADHD and an interview with an important other. Outcome was rated by two independent experts in adult ADHD.

Results: The total sample consisted of 62 bipolar II patients. Forty-two participated in the first screening. The ratings of 22 patients were not above threshold. Of the 20 patients with a positive score, 6 refused further participation. Of the 14 remaining, 11 satisfied full ADHD criteria in childhood as well as adulthood.

Patients with co-occurring ADHD were significantly more often female (82%) and had more relationships in the past. All other demographic variables were not significantly different. None of the treating physicians had prior to the study been aware of the diagnosis of ADHD in the bipolar II patients.

Conclusions: In adults with bipolar II disorder, ADHD is a common co-occurring disorder. Almost 18% of patients with bipolar II disorder also applied for a lifetime diagnosis of ADHD. Especially female patients with bipolar II disorder had relatively often co-occurring ADHD. Since this study was carried out in a specialized centre for mood disorders, further confirmation of this high prevalence rate should be object of further study.

S21.04

ADHD frequency and characteristics in students suffering from learning disabilities

I. Manor¹, S. Medad¹, Z. Zamishlani¹, N. Vurmbbrand². ¹ADHD Clinic, Geha Mental Health Center, Petach Tikva, Israel ²"MAHUT" Center, Seminar Hakibutzim, Tel-Aviv, Israel

Attention Deficit and Hyperactivity Disorder (ADHD) is a common disorder, estimated to occur in 4-6% of the adult population. Learning disabilities (LD) are a group of heterogenic disorders