

Poster presentation

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Parental report of sleep habits and sleep problems in primary school children with ADHD and community control subjects

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Background

Sleep-related problems are frequently encountered in many of the developmental psychopathologies. Considerable clinical, as well as empirical data support an association between sleep problems and Attention Deficit Hyperactivity Disorder (ADHD) in children [1]. This relationship is probably more complex [2,3]. In fact, there seems to be a bidirectional relation; children with inadequate or divided sleep profile are overactive and have concentration difficulties in the daytime, and the behavioral problems associated with ADHD might have adverse effects on sleep, as well.

We aimed to investigate the sleep problems in ADHD cases and to compare them with those of normal controls.

Materials and methods

The study was composed of 44 primary school (age range: 7–11) children with a clinical diagnosis of ADHD, and age-sex matched 40 community control subjects. The community subjects evaluated as $>+2SD$ by Conners' Parent and Teacher scales were excluded from the control group. In this case-control study, a semistructured parental interview; questioning the time of sleep and awakening, the sleep-onset prolongation, sleep habits, sleep awakenings, the irritability during sleep, and parasomnias, was used. The significance level of the study was set at $p = 0.05$. The power of the study was 0.80. Pearson Chi-square analysis was used in addition to ANOVA for nominal values for the comparison of study groups.

Results

The ADHD group was composed of 9 girls and 35 boys. The mean age was 9.8 ± 1.8 years for the ADHD group and

8.7 ± 1.3 years for the normal controls. The percentage of children who needed their parents to stay aside during sleep onset were 18.9% in ADHD vs. 7.8% in controls. Transitional objects were needed by 8.1% of ADHD children vs. 3.9% controls. Nightmares, over activity during sleep, bed-wetting, interruptions of sleep, and teeth grinding were significantly more frequently reported in the ADHD group ($p < 0.001$). ADHD children had significantly more elapsed time to go into sleep during the school days ($p < 0.02$).

Discussion

Sleep disturbances, particularly at bed-time, are frequently reported by parents in ADHD [1]. Children undergoing evaluation for ADHD should be routinely screened for sleep disturbances. The children with a diagnosis of ADHD would benefit from an assessment regarding the sleep profiles. The behavioral and time based regulations on sleep may have positive effects on daily symptom profile [4]. Therefore, ADHD children with a comorbid diagnosis of sleep disorder would better receive individualized interventions for each disorder.

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