

of macula and foveal annulus. Achenbach Child Behavioral Checklist (emotional and behavioral) outcomes were not closely associated with retinopathy severity [1].

References.

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DISORDERS OF ATTENTION AND BEHAVIOR

ADHD, VISUAL SELECTIVE INATTENTION, AND BENIGN ROLANDIC EPILEPSY

Investigators at Asan Children's Hospital, Seoul, Republic of Korea, performed a retrospective study of the prevalence of ADHD in benign childhood epilepsy with centrotemporal spikes (BECTS) and the factors that affect ADHD or attention impairment in patients with BECTS. Of a total of 198 children diagnosed with BECTS, 74 had neuropsychological examination, and 48 (64.9%) had ADHD. A history of febrile convulsion was more common in patients with ADHD than in those without ADHD ($p=0.049$). Bilateral centrotemporal spikes on EEG were more common in patients receiving ADHD medication than in patients untreated for ADHD ($p=0.004$). Male patients (44/74) with frequent seizures, and patients with sleep EEG with high spike index ($>40/\text{min}$) at diagnosis had significantly lower visual selective attention ($p<0.05$). (Kim E-H, Yum M-S, Kim H-W, Ko T-S. Attention-deficit/hyperactivity disorder and attention impairment in children with benign childhood epilepsy with centrotemporal spikes. *Epilepsy Behav* 2014 Jun 26;37C:54-58).

COMMENTARY. In children with BECTS and ADHD, frequent seizures or interictal epileptiform abnormalities are closely related to impairment of visual selective attention. Previous studies of the relation of attention impairment to epilepsy and ADHD have demonstrated a link between the side of the epileptic EEG focus and the type of learning deficit. A focus in the right hemisphere is associated with impaired visuo-spatial processing [1].

In a study of 30 children with BECTS and 13 with Panayiotopoulos syndrome, only children with BECTS showed a strong tendency toward a rightward bias in attentional orientation. Right rolandic spikes aggravate subclinical reorienting difficulties. These findings provide new evidence for alterations of attentional mechanisms by interictal epileptic activity, which may contribute to learning difficulties [2]. Children with early-onset benign childhood occipital seizures (Panayiotopoulos syndrome) show selective learning disabilities involving visual-spatial memory and other cognitive dysfunctions [3].

References.

1. Piccirilli M, et al. *Epilepsia*. 1994 Sep-Oct;35(5):1091-6.
2. Bedoin N, et al. *Epilepsy Behav*. 2012 Sep;25(1):81-91.
3. Germano E, et al. *Epilepsy Res*. 2005 May;64(3):137-50.