Concussion History in Adolescent Athletes with Attention-Deficit Hyperactivity Disorder.

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Abstract

Little is known about the rate of concussions in adolescents with attention-deficit hyperactivity disorder (ADHD). We hypothesized that high school athletes with ADHD would report a greater history of concussion than students without ADHD. 6,529 adolescent and young adult student athletes, between the ages of 13 and 19 (M=15.9, SD=1.3 years), completed a preseason health survey in 2010. Of those with ADHD, 26.1% reported a history of one or more concussions compared to 17.1% of those without ADHD (p<.00001; OR=1.71). Stratified by gender, 27.0% of boys with ADHD reported a history of one or more concussions compared to 20.0% of boys without ADHD (p<.004; OR=1.48), and 23.6% of girls with ADHD reported a history of one or more concussions compared to 13.6% of girls without ADHD (p<.003; OR=1.97). Of those with ADHD, 9.8% reported a history of two or more concussions compared to 5.5% of those without ADHD (p<.0003; OR=1.87). Stratified by gender, 10.0% of boys with ADHD reported a history of two or more concussions compared to 6.7% of boys without ADHD (p<.033; OR=1.54), and 9.1% of girls with ADHD reported a history of two or more concussions compared to 3.8% of girls without ADHD (p<.006; OR=2.51). In this large-scale, retrospective survey study, boys and girls with ADHD were significantly more likely to report a history of concussion. Additional research is needed to determine if students with ADHD are more susceptible to injury (i.e., have a lower threshold) or have different recovery trajectories.

Keywords: Head trauma; Pediatric brain injury; Traumatic brain injury

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