Factors Associated With Musculoskeletal Injuries in Children and Adolescents With Attention-Deficit/Hyperactivity Disorder.

Guy JA, Knight LM, Wang Y, Jerrell JM.


Abstract

BACKGROUND:
Musculoskeletal injuries may be associated with attention-deficit/hyperactivity disorder (ADHD) symptom severity, comorbid psychiatric or medical conditions, and the prescribed psychostimulant.

METHODS:
A population-based, retrospective cohort design was employed using South Carolina's Medicaid claims data set covering outpatient and inpatient medical services and medication prescriptions over an 11-year period (January 1, 1996, through December 31, 2006) for patients ≤ 17 years of age with ≥ 2 visits for ICD-9-CM diagnostic codes for ADHD. A cohort of 7,725 cases was identified and analyzed using logistic regression to compare risk factors for those who sustained focal musculoskeletal injuries and those who did not.

RESULTS:
The risk of sustaining sprains, arthropathy and connective tissue disorders, or muscle and joint disorders was significantly related to being diagnosed with comorbid hypertension (adjusted odds ratios [aORs] = 1.60, 2.09, and 1.46, respectively) and a substance use disorder (aORs = 1.58, 1.38, and 1.28). Having a substance use disorder was also related to incident fractures and dorso/spinal injuries (aORs = 1.42 and 1.21). Diagnosed hypertension was related to incident concussions (aOR = 2.00), a diagnosed thyroid disorder was related to an increased risk of sprain and concussion (aORs = 1.44 and 2.05), a diagnosed anxiety disorder was related to an increased risk of dorso/spinal disorders (aOR = 1.71), and diagnosed diabetes was related to incident bone and cartilage disorders (aOR = 1.61).

CONCLUSIONS:
Comorbid hypertension, substance use disorders, and thyroid disorders deserve increased clinical surveillance in children and adolescents with ADHD because they may be associated with an increased risk of more than one musculoskeletal injury.