Attention-Deficit/Hyperactivity Disorder and Fatal Accidents in Aviation Medicine.

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Abstract

BACKGROUND:
Attention-deficit/hyperactivity disorder (ADHD) is a neurodevelopmental disorder with symptoms of inattention and/or hyperactivity-impulsivity that interfere with functioning and/or development. ADHD occurs in about 2.5% of adults. ADHD can be an excluding medical condition among pilots due to the risk of attentional degradation and therefore impact on flight safety. Diagnosis of ADHD is complex, which complicates aeromedical assessment. This study highlights fatal accident cases among pilots with ADHD and discusses protocols to detect its presence to help to assess its importance to flight safety.

METHODS:
To identify fatal accidents in aviation (including airplanes, helicopters, balloons, and gliders) in the United States between the years 2000 to 2015, the National Transportation Safety Board (NTSB) database was searched with the terms ADHD, attention deficit hyperactivity disorder, and attention deficit disorder (ADD).

RESULTS:
The NTSB database search for fatal aviation accidents possibly associated with ADHD yielded four accident cases of interest in the United States [4/4894 (0.08%)]. Two of the pilots had ADHD diagnosed by a doctor, one was reported by a family member, and one by a flight instructor. An additional five cases were identified searching for ADD [5/4894 (0.1%)]. Altogether, combined ADHD and ADD cases yielded nine accident cases of interest (0.18%).

DISCUSSION:
It is generally accepted by aviation regulatory authorities that ADHD is a disqualifying neurological condition. Yet FAA and CASA provide specific protocols for tailor-made pilot assessment. Accurate evaluation of ADHD is essential because of its potential negative impact on aviation safety.