Sports related concussion diagnosis

Computed tomography and magnetic resonance imaging, are unable to elucidate the degree of white matter damage and neurometabolic change.

Much attention has been paid recently to the diagnosis of concussion, and the understanding of this condition has increased significantly in the past 10 years. Legislative initiatives have focused on the diagnosis and management of concussion to keep children and adolescents with concussion away from the field of play until their symptoms have resolved fully.

Family physicians need to be aware of evolving knowledge regarding concussion and the resulting changes in the definition, diagnosis, and management of this condition [1].

Diffusion tensor imaging

see Diffusion tensor imaging in sports related concussion.

Neurocognitive testing

Brief cognitive test (the Mayo Concussion Test), a computer-based neuropsychological test, and the Post-Concussion Symptoms Scale.

Post-Concussion Assessment and Cognitive Testing (ImPACT) battery.

Athletes with attention deficit hyperactivity disorder (ADHD) and/or learning disability (LD) have lower baseline ImPACT neurocognitive scores compared with athletes without ADHD and LD [2].

1)
Mularoni PP. Sports medicine in children: sports-related concussion. FP Essent. 2014 Feb;417:11-21. PubMed PMID: 24555725.
2)
Zuckerman SL, Lee YM, Odom MJ, Solomon GS, Sills AK. Baseline neurocognitive scores in athletes with attention deficit-spectrum disorders and/or learning disability. J Neurosurg Pediatr. 2013 Aug;12(2):103-9. doi: 10.3171/2013.5.PEDS12524. Epub 2013 Jun 21. PubMed PMID: 23790088.