Same-Day Play Nixed After Teen Concussions

BY BRUCE JANCIN

KEYSTONE, COLO. — No athlete under the age of 18 who experiences a concussion should ever be allowed to return to play on the same day, according to recent consensus recommendations arising from the Third International Conference on Concussion in Sport.

This position is solidly based on incontrovertible evidence that the still-developing brains of adolescents and children are slower to heal from concussions, Michael W. Collins, Ph.D., said at the annual meeting of the American Orthopaedic Society for Sports Medicine.

"The younger you are, the longer it takes to recover from the injury. The data [are] unquestionable that kids are dif-



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DR. COLLINS

ferent. The only cases of second-impact syndrome have happened in adolescents and young adults, the point being that the developing brain is more vulnerable," explained Dr. Collins, assistant director of the University of Pittsburgh Medical Center Sports Concussion Program.

The guidelines state that athletes under age 18 years must be carefully monitored and their activities restricted until they have fully recovered from their concussion. That means no exertion—physical or mental. No video games, no text messaging, no cramming for tests, and perhaps even, for a time, no school. Neurocognitive testing while the young athlete still is symptomatic is recommended in the guidelines as useful in assisting physicians in planning regarding school and home management (J. Clin. Neurosci. 2009:16:755-63).

The concussion conference, hosted by FIFA (the Federation Internationale de Football Associations, sponsor of soccer's World Cup) took place in Zurich late last year. The consensus guidelines urge moving away from concussion severity grading scales, a proposal enthusiastically endorsed by Dr. Collins.

"We know the grading scales are not effective," he said. "You will never hear a grade of concussion come out of my mouth. It doesn't predict anything in terms of prognostic outcomes."

The injured patient needs to be asked, "What symptoms are you having? Are you having headaches, feeling dizzy, fatigued, nauseous, photophobic, foggy?" Dr. Collins continued.

The consensus report states there is little role for neuroimaging except when a structural lesion is suspected, a view shared by Dr. Collins.

"Concussion is not a structural brain injury, it's a metabolic crisis. You can't see it on CT or MRI," he stressed.

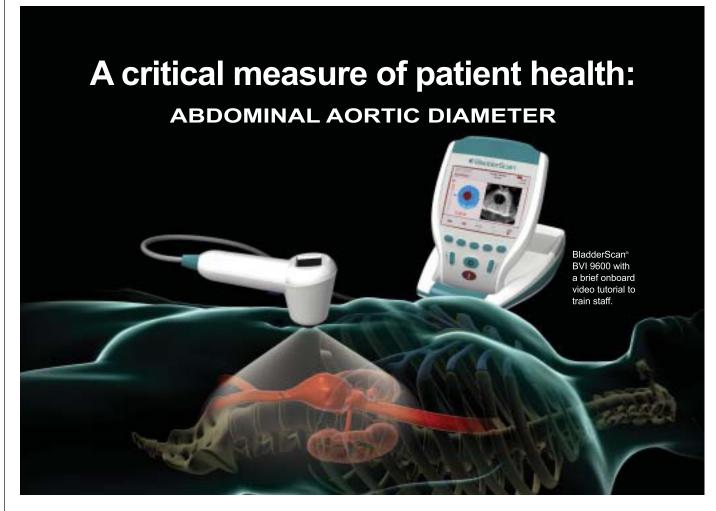
This metabolic crisis involves injuryinduced increased neuronal energy demand at the same time cerebral vasoconstriction causes decreased energy delivery.

The consensus report introduces the Sport Concussion Assessment Tool 2 (SCAT2), designed as a practical aid to physicians in evaluating injured athletes in the emergency department, office, or on the sidelines. However, the report's authors note that the SCAT2 has yet to

be formally validated, and they name that as a research priority.

Dr. Collins's audience included the team physicians for many professional and big-time collegiate sports teams. He reassured them he considers same-day return to play reasonable for athletes at those levels on a case-by-case basis.

"At the college and professional level, I absolutely think there are instances where, if an athlete who's briefly symptomatic comes out, you exert them on the sidelines, do the mental status testing, go through a whole symptom profile, and they resolve very quickly, I would allow some of those athletes to play. But at the high school level or below, I don't think you can go wrong by being conservative. For them, shutting down exertion and avoiding repeat trauma is, I think, the prudent and appropriate management," he said.



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