Research Roundup

The concussion literature this month has been dominated by the publication of two issues of *British Journal of Sports Medicine* featuring systematic reviews from the International Consensus Conference on Concussion in Sport held in Berlin last year. These papers were discussed at the meeting and used to inform development of the new consensus statement.

These two issues can be found here and here.

**Reducing musculoskeletal injury and concussion risk in schoolboy rugby players with a pre-activity movement control exercise programme: a cluster randomised controlled trial**

*Hislop MD et al., Br. J. Sports Med.*
*Doi: 10.1136/bjsports-2016-097434*

This randomised controlled trial examined the effects of implementing a movement control exercise programme on injury in schoolboy rugby players.

The intervention implemented in this study was a 20 minute exercise programme which included balance, resistance and plyometric training, rehearsal of landing and cutting manoeuvres plus verbal feedback and technique reinforcement. Data were collected from 31 schools, with 44 teams (1325 players) randomised to receive the intervention and 39 teams (1127 players) serving as controls.

When data from all participants were examined, those assigned to the intervention programme were observed to have reduced concussion incidence compared with controls. Teams who were regularly completing the programme more than three times per week experienced 59% fewer concussions versus control teams with an equivalent dose.

When positive effects on other injury types are also considered, these findings are encouraging and support further work on this potential injury prevention approach. However, the authors warn that the results of this controlled trial are not sufficient to translate into real-world contexts at the present time.

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**Comprehensive Headache Experience in Collegiate Student-Athletes: An Initial Report From the NCAA Headache Task Force**

*Seifert T et al. Headache*
*Doi: 10.1111/head.13104*

This cross-sectional survey evaluated headache history in 834 NCAA student athletes. Personal history of migraine was reported in 23.7% of participants, sinus headaches in 25.2% and tension-type headache in 12.3%.

The relatively high prevalence of migraine observed in this population is certainly multi-factorial but the authors raise the question of a potential role for head trauma and emphasise the need for prospective studies that are not reliant on self-diagnosis. As pre-existing headache and migraine can complicate recovery and return-to-play protocols, the authors highlight the importance of preseason evaluations which include details of personal and family headache history.

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**Family History of Migraine Associated With Post-traumatic Migraine Symptoms Following Sport-Related Concussion**

*Sufinko A et al. J Head Trauma Rehabil*
*Doi: 10.1097/HTR.0000000000000315*

This cross-sectional study looked at the correlation between family history of migraine and post-traumatic migraine symptoms following concussion. In 153 adolescent patients recruited from an outpatient concussion clinic, those with family history of migraine were observed to be 2.6 times more likely to present with post-traumatic migraine than those without family history.

The authors state that their findings may suggest the existence of a genetic predisposition for post-traumatic migraine, although more data are required.

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