Researchers provide insight into the true dangers of progressive brain diseases in repeated head sport injuries

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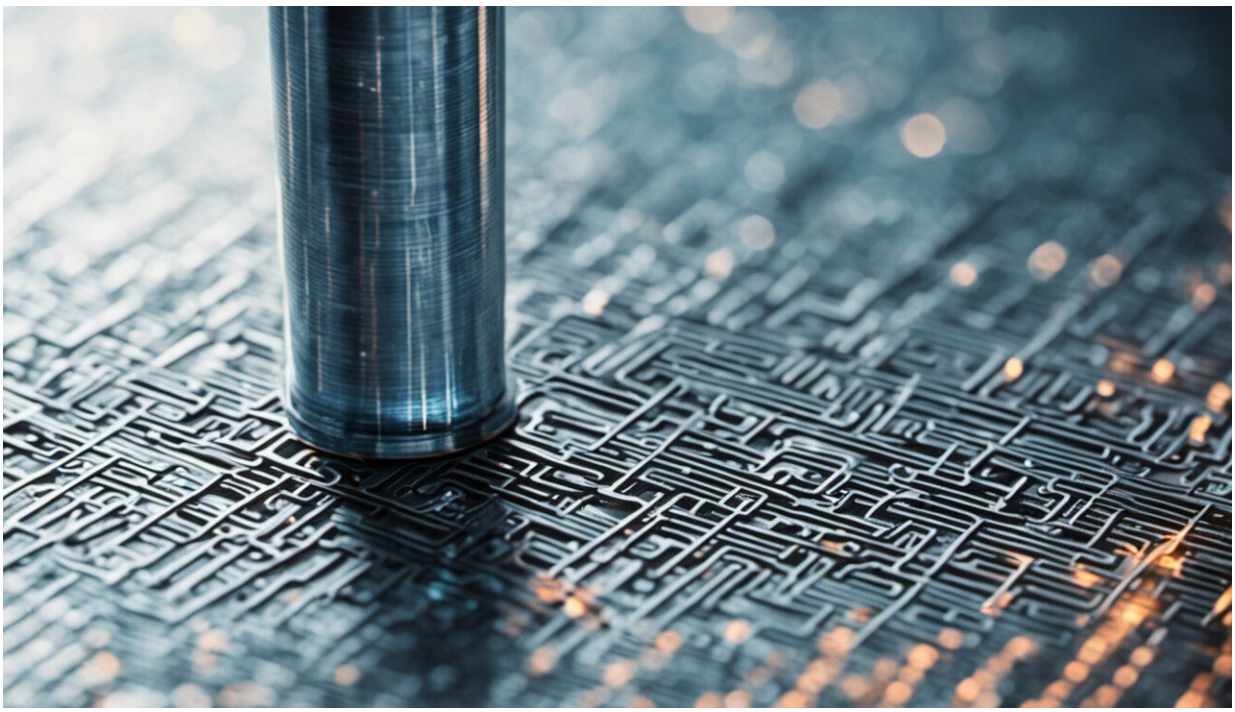

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Researchers and scientists have provided a clearer picture into the true dangers of progressive brain diseases in repeated head sport injuries that must now be tackled head-on.

Europe's Six Nations rugby tournament kicked-off last month and remains the most attended sporting event in the world. For your writer – former player and teammate of internationals – it symbolises spring weather, rousing national anthems and infectious rivalries.

Nevertheless, several recent high-profile head injuries have started to taint the gentleman's sport and instead raise serious dangers and probable links between rugby and degenerative brain diseases. According to Rugby Football Union data, concussion is the most common injury in the game, with 5.1 instances for every thousand hours of rugby played and players now weigh on average more than a stone heavier (7.2kg) than they were 20 years ago. This means that the force of their collisions can be the equivalent of what the body experiences in a car crash. And it's not just rugby making all the wrong headlines.

UEFA, the governing body of football in Europe recently commissioned a research project this past February to examine the links between dementia and playing football after many former players were critical of a perceived reluctance by national authorities to take action.

In truth, these dangers were never really fully discussed or understood from grassroots level up, until 2002, when a forensic neuropathologist called Dr Bennet Omalu took a closer look at the brain of deceased American Football star Mike Webster. His findings continue to shock and led to Will Smith starring in the film 'Concussion' to highlight the discovery of Alzheimer's-like symptoms in the brains of former National Football League (NFL) players. Dr Omalu found that Webster had Chronic Traumatic Encephalopathy (CTE), a degenerative brain disease that chokes the brain usually associated with boxers. CTE has since been linked to memory loss, depression and dementia and found in the brains of many other contact sports.

As a result, sporting authorities are now playing catch-up. In September

2016, American football's NFL announced it would spend $100m on medical and engineering research to increase protection for players, after agreeing a $1bn settlement to compensate ex-players who had suffered brain injuries. In the UK, a research project is tracking the head injuries of around 50 players at Saracens Rugby Club by looking for biomarkers in their blood, urine and saliva to find chemical changes when a brain injury occurs. 'We need to follow players of contact sports to collect this systemic data. We need to find out why a repetitive injury in your 30s can lead to brain disease in your 50s,' shared John Hardy, professor of neuroscience at University College London (UCL).

Researchers from UCL and Cardiff University, whose study was published in March 2017 in the journal 'Acta Neuropathologica', also examined the brains of six footballers who played for 26 years. The results showed that all six went on to develop dementia in their 60s and post mortem examinations found signs of CTE in four cases. 'So really for the first time in a series of players we have shown that there is evidence that head injury has occurred earlier in their life which presumably has some impact on them developing dementia,' underlined UCL's Professor Huw Morris.

Professor Patria Hume studied hundreds of rugby players and non-contact sportspeople and shared how '…it's irresponsible for people to say there are no long-term brain health issues.'

The evidence remains regrettably far from clear-cut with researchers still speculating on the factors that can lead to brain injuries therefore prompting the need for further research.

What is clear however, is that the symptoms of CTE are terrifying for the afflicted and new guidelines must offer players more protection and more awareness of the dangers involved. Children should also be immediately protected until the probable links can be refuted.

Arguably sports such as rugby could one day disappear if athletes continue to put their minds on the line whilst authorities continue to dither and dally.

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