

## Rugby coming round to concussion dangers - The Scotsman

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# Rugby coming round to concussion dangers



Rory Lamont in action for Scotland in 2012. Picture: Jane Barlow

by **DAVID FERGUSON**

witnessed a significant revelation that many of those playing and managing sport at all levels had as much concern about brain injury as a toddler.

Five months after Rory Lamont, the former Scotland full-back, lifted the lid in an exclusive Scotsman interview on a culture within sport that treated concussion as a temporary, minor injury, rugby unions, leading sports medics, government officials and other sporting bodies have begun to accept that some of their practices in managing head injuries

**THE phrase “no  
brainer” has dug itself  
deep into the modern  
lexicon, yet in 2013 we**

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were inadequate.

What we have also discovered is that many athletes, coaches and teachers across sport were at best unaware of existing guidelines and, at worst, choosing to ignore them. Following Lamont's testimony in July, Dr Willie Stewart, a consultant neuropathologist at Glasgow's Southern General Hospital and a world-leading researcher in the pathology of brain injury, revealed that he had reviewed the first case linking exposure to concussions suffered by a rugby player and the symptoms of early-onset dementia.



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He found that there were more recognised tell-tale marks on the brain of a rugby player who had died after suffering from early-onset dementia than on the brain of a boxer who had already been diagnosed with the brain disease previously termed dementia pugilistica but now more widely known as chronic traumatic encephalopathy (CTE).

#### SEE ALSO:

- [Our piece on concussion protocols from July](#)
- [Lamont - 'I was forced to play injured](#)

That shone a global spotlight on sport's governing bodies, and they did not welcome the attention. The evidence came at a time when rugby was reeling against a spate of concussions in the game affecting high-profile players, notably Brian O'Driscoll, when playing for Ireland, and Australian flanker George Smith, who returned to the field of play after being given the green light by medics despite suffering clear, leg-bending concussion.

After initial criticism and dismissal of the Scotsman articles in rugby circles, the International Rugby Board's chief medical officer, Dr Martin Raftery, told us he felt Lamont's comments to be helpful to raising awareness. The SRU equivalent, Dr James Robson, and its president, Dr Donald Macleod, praised Lamont for speaking out in the hope that it would help players take concussion more seriously.

In September, we reported on the verdict of a Belfast coroner that confirmed 14-year-old Ben Robinson had died as a result of "second impact syndrome" – when one concussion is followed by another – and in November, football stepped into the controversy when Tottenham goalkeeper Hugo Lloris was knocked unconscious after an accidental collision with Everton striker Romelu Lukaku.

After coming to, and being assessed by medics, Lloris was allowed to finish the game, which brought opprobrium on his then manager Andre Villas-Boas from across sport and even the House of Commons. Villas-Boas defended his decision, but Lloris was dropped the following week having apparently failed to pass the club's concussion tests. The FA's guidelines on concussion came in for criticism.

Lamont has found himself shunned by some elements in the game who still believe him to have been "soft", and Dr Stewart, himself a former rugby player and avid supporter, admitted that in the intervening months he has been the victim of "name-calling" in private meetings with leading figures in sport.

"My hope is that that message is now getting home," he said this week, reflecting on the effects of

those articles five months on. “Science is always about proving yourself wrong. You develop a hypothesis, which in this case was that brain injury is associated with increased risk of a degenerative brain disease, but you don’t go out to prove that; you go out to prove that it doesn’t.

“So, you become weirdly insecure as a scientist, desperately trying to prove yourself wrong all the time. So, in this case, we do all we can to design studies to prove there is no link. And then we found the evidence in the brain of the rugby player in his 50s, which coincided with Rory speaking out about how our management and testing of concussion in elite rugby might not be perfect, and we then knew what we suspected – that we have similar problems in rugby and other sports that exist in American football – and your decision to publish changed everything.

“In the months since summer I detect considerable changes in the conversations and attitudes around concussion in sport. Whether these were changes already in the pipeline and coincided with the increased media attention, or whether the media attention brought on these changes, we may never be sure. But the important thing is attitudes are changing in rugby and across all sports.”

The pressure has come from many corners. Lamont’s words came in the wake of the resignation of Dr Barry O’Driscoll, Brian’s uncle, from the IRB in protest at the new Pitchside Suspected Concussion Assessment (PSCA). The George Smith case was an example of the protocol in practice.

Smith apparently underwent the PSCA assessment and passed, which was why he returned to the Test match against the British and Irish Lions, but, leaving aside the question of how a concussed man passed it, the IRB denounced that as an example of it being misused. The PSCA should only be used if concussion is not apparent, but suspected, when with Smith it was apparent to all who watched his legs flop about as he was led from the field, hence the widespread criticism.

But we have witnessed best practice on the rugby field, as recently as Boxing Day, when Glasgow’s Tommy Seymour and Ruaridh Jackson were immediately withdrawn and replaced without any requirement for the controversial PSCA due to the club medic’s concerns over concussion. Glasgow also kept lock Tom Ryder sidelined for five weeks due to a concussion earlier this season, which was almost unheard of in the past.

The IRB believe the PSCA is a step forward but there remain concerns about its reliability. Their own figures on players playing on with concussion before the PSCA came in have doubled. They now believe a staggering 56 per cent of concussed players stayed on the pitch pre-2011. But how that figure is calculated remains unclear and there is a lack of clarity and peer review around this new method.

The IRB want every union to adopt the PSCA, despite reluctance from places such as Murrayfield, and it may be more advantageous to research if some unions adopted it and some did not in the forthcoming RBS Six Nations, as such varied analysis might offer a truer indication of its value.

Dr Stewart said: “The reaction of sports and high-level people being asked to change something in the game’s culture has been interesting for someone like me more used to scientific debate, but the levels of ignorance, astounding in some cases, is our [scientists’] fault in many ways.

“Sport, especially rugby, now involves more highly-trained and more physical athletes, and so results in more collisions and opportunity for head knocks. So, for me, the understanding of what a concussion actually is in terms of the injury to the brain and where we are in developing that understanding in modern research, together with the long-term problems, is more vital now than

ever.

“But I get a sense our current understanding of what a concussion is has not yet permeated to the senior game’s medics, which is a failing in our communication of this message from the research community.

“If we can’t properly communicate the science of this to high-level people in rugby unions and the governing body for the sport worldwide, then what hope have we got of getting the message through to kids and teachers and coaches at schools and youth clubs?”

It is easier for many to diagnose a broken ankle, shattered knee, torn hamstring or shoulder ligament, but the brain is complex and not visible to the naked eye, making damage more difficult to detect. Diagnosing a concussion in seconds, with several thousands watching and a player and often a coach urging a swift thumbs-up, is a pressure that Dr Stewart admits he could not contemplate, far less cope with.

Intriguingly, though, the science around concussion goes beyond sport. As a father of teenagers I was fascinated to learn that US research has shown that when rested from sport, children with symptoms of concussion should also be kept from watching TV or doing homework, as cognitive rest is possibly more important than physical rest in helping a child recover.

In the USA, children suffering from concussion are given lighter workloads and returned to schoolwork gradually, while here teachers still routinely hand extra classwork to sick children excused from PE.

Dr Stewart added: “It is about research and education ultimately. Our aim now is to educate and inform at the very highest level, with players and coaches and schools and youth clubs. Rory made a very good point that he just didn’t know the damage he could be causing himself by ignoring concussion, and we’ve now heard from more and more players across a growing range of sports saying much the same thing.

“We don’t want to scare people away from sport, but we need players and coaches to really grasp the responsibility around head knocks, and understand that if a player has symptoms, while you might think it’s great to get back playing quickly, actually he or she would be letting down the team, because concussion affects performance as well as increasing the risk of other injuries. And, if another concussion is sustained before the first has recovered the risks of suffering worse or longer term symptoms greatly increases. In the worst-case scenario, as we saw with Ben, a second concussion can be fatal.”

He added: “We don’t know what the effects of pro rugby and regular collisions will be on players in the future, but this year brought us the first evidence of a link between injuries on the field and degenerative brain disease.

“I would like to get to a level where participating in sport with concussion is as abhorrent as drink driving. Just as we now have people in a bar who’ll say ‘I don’t think you should drive’, we need to get to the point of players saying to their team-mate, coaches saying to their players and parents saying to their kids: ‘I don’t think you should carry on’ when they suspect a concussion. That’s my goal.”

A no-brainer?

**Now players need to understand risks**

AFTER propelling concussion to the forefront of sports medicine, the challenge in 2014 will be at least as significant in changing the habits of the people who matter: the players.

With sporting bodies rallying behind the campaign, many insisting that it has brought a new voice and authority to long-time efforts behind closed doors to have brain injuries taken more seriously, the Scottish Government has thrown its weight behind Dr Willie Stewart and Peter Robinson, whose son Ben died after he suffered two concussions in a schoolboy rugby match in Ireland.

With the Scottish Rugby Union, Scottish Football Association and sportscotland also involved – one hopes that the Scottish Hockey Union will also join up – the government will next month publish a new leaflet for sports clubs and schools which carries Ben's shocking story alongside guidance on how to deal with concussion.

It is a step short of mandatory training for all coaches and teachers working with children, which has been introduced to some states in America, but it is a step that did not exist in 2013.

Dr Stewart said: "We now have a wider focus on sports concussion and acknowledgement that chronic traumatic encephalopathy is not just restricted to boxing any more, which some people had viewed as a uniquely brutal, 'crazy sport'. This is about all sports now. All exposures.

"There is an undoubted acute management issue as shown in Ben's story, but we also now know more of the long-term problems after concussion and these have raised the stakes across all sport."

There is an obvious route to raising awareness here through the syllabuses taught at the increasing number of 'Schools of Sport' and 'Schools of Rugby'.

"It remains step by step," added Dr Stewart. "We now have the Scottish Government on board, both in gathering information and distributing it, and their officials have been and remain very impressive in their response to this issue. The SRU, SFA and sportscotland are all working together on this, so now we need to start the next phase of education.

"We have started gathering data from schools and youth clubs on their awareness of concussion issues, which we should be analysing in the next few weeks. In 2014 we need to improve education at the top level and with professionals, but, crucially, get to the players, coaches and teachers throughout the country at schools and club level, because that is where we will change the culture that has been prevalent in sport that concussions are perhaps not a big deal. We now know that they are."