

Funky treatments in elite sports people: do they just buy rehabilitation time?

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Evidence-based treatments exist for many sports injuries; for example, reconstruction of the anterior cruciate ligament (ACL) is clinically effective and has evidence to support it. Other injuries that have a more difficult, recurrent or variable time course to recovery, for example, muscle strains, tendon injuries and bone stress, have more limited evidence.

Although a range of interventions exist for these problematic conditions in 'conventional' or 'mainstream' medicine, a plethora of gurus offer more exotic interventions and 'promise' quicker and better outcomes and return to sport. Gurus are successful in gathering clients for their interventions in a range of ways, but one ingredient is expectation. There is a wealth of information that shows clinical enthusiasm ('Gee, he's confident'), novelty ('No one told me about this!') and expense ('The best money can buy') relate to improved outcomes—usually by increasing expectation¹—this is the calling card of a guru.

In addition to the guru's treatments, conventional medical practitioners offer treatments that have a reasonable theoretical construct but lack scientific or clinical evidence. Epidural or facet joint injections for non-specific low back pain are examples of treatments with a good theoretical basis for effectiveness, but which still lack the basic science and clinical evidence. Angst caused by challenging the evidence for these treatments is damaging for all parties.^{2,3}

A common question posed among the backroom staff of professional sports teams is whether a funky treatment by either gurus or conventional medicine is the reason for a good outcome, or whether it is just that athletes are given good rehabilitation for a reasonable length of time after the intervention. In the equine athlete, stem cell treatment of equine tendinopathy is reported to have excellent outcomes, returning many treated horses to racing. After stem cell treatment, the horses are subjected to an extensive and lengthy rehabilitation of 12 months or more. Racehorses with a tendon injury that are not treated with stem cells are rarely given the luxury of lengthy rehabilitation; they are usually retired. Despite excellent outcomes from stem cell injection, investigators need to test rehabilitation alone against stem cells and rehabilitation. Without this, there is little convincing evidence that it is the stem cells themselves that effect the cure.

ELITE ATHLETES: JUST BUYING TIME WITH THE 'FUNKY TREATMENT'?

Returning to the human athlete, if an athlete had an injury that required conservative management over a considerable time, would the team medical

staff be happy to recommend this to the manager or coach? Or is it better to be seen to be actively intervening with the latest trendy treatment that then requires a significant rehabilitation? In professional sport, there are some treatments that could be considered like this—for example, Traumeel injections in muscle. It could be supposed that an intervention then takes the decision for the length of the recovery time off the medical staff, something that reduces the stress for the purveyor of bad news. Also, are the coaches and managers more amenable to rehabilitation if there is a 'necessary and unavoidable' intervention first?

Even some surgical interventions are undertaken, despite the lack of a pathological target; groin pain offers a perfect example, where treatment of a sportsman's hernia (even with normal imaging) improves outcome but is also associated with several weeks of rehabilitation. The notion that surgery is the final step in the management of persistent pain is one that pervades the sporting world, and the expectation that doing 'something'—an intervention of sorts—is more effective than 'rehab' is widespread in sports.

What is often forgotten is that although conservative management has its risks (it may not work), so do exotic interventions; aside from lack of recovery, infection, reaction or frustration are all possible. This point is nearly always lost in the 'technology enthusiasm curve,' where convinced practitioners advocate these treatments to athletes who are not in a position to make a truly informed decision. The enthusiasm for these treatments waxes and wanes at different rates, somewhat related to their success, but also on practitioner factors such as convenience and financial benefit.⁴ There must come a time when better examination of reasons for interventions is undertaken, and that athletes are better informed of the evidence for the treatment.

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REFERENCES

1. **Kalauokalani D**, Cherkin DC, Sherman KJ, *et al*. Lessons from a trial of acupuncture and massage for low back pain: patient expectations and treatment effects. *Spine* 2001;**26**:1418–24.
2. **Kmietowicz Z**. President of British Pain Society is forced from office after refusing to denounce NICE guidance on low back pain. *BMJ* 2009;**339**:b3049.
3. **Kmietowicz Z**. Science writer is refused permission to appeal against libel ruling over comments on chiropractors *BMJ* 2009;**339**:b3166.
4. **Tasto JP**, Cummings J, Medlock V, *et al*. The tendon treatment centre: new horizons in the treatment of tendinosis. *Arthroscopy* 2003;**19**:213–23.