Editorial

Risk of overuse injuries – prevention and understanding of individual factors are the key

I am the team physician of one of the soccer teams in the Swedish premier league. Today, we are playing one of the most important games of the year. If we win, we might still be in the race for the gold medal, and if not, we are out. One of our best players; only 17 years old, is regrettably unable to play today, due to lower leg pain. He is really one of the best young players I have come across during the 25 years I have been involved as a team doctor. And, we have really tried to be very careful during the season, with careful attention to his physical (and mental) status, intermittent rest, alternative training, and only allowing him to play for 60–70 min per match. In spite of this he is injured and he is unable to play today due to his overuse injury. His radiographs showed periosteal reaction and the MRI showed signs of overuse injury, with stress reaction in both of his tibiae. This injury might, if not treated correctly at this early stage possibly be career-threatening. He might end up with a stress fracture, a much more serious injury.

What does this all mean? The answer is that he is young and not fully prepared for full time football at senior level. But, he is a good enough player to play on this level, he runs faster than the defenders in the opposing teams and – most important - he scores goals.

In this issue of the Scandinavian Journal of Medicine and Science in Sports, van Middelkoop and co-workers deal with lower extremity injuries in male marathon runners (van Middelkoop et al., 2008). They found that several of the risk factors were modifiable, like the amount of training (number of training kilometres) and the fact that interval training was a strong protective factor for knee injuries. Interestingly, higher education level was found to be a positive protective factor for lower leg injuries. Among the most negative factors was previous injury. Previous injury is a factor that has repeatedly been shown to be related with a higher risk of future injuries, both traumatic and overuse, as shown in several recent and classic studies (Augustsson et al., 2006; Olsen et al., 2006; Steffen et al., 2008). The same thing has been shown in several different sports, as volleyball, football and European handball, as well as for several different injuries (Nørregaard et al., 2007). In other words, many or even most of the risk factors are modifiable, but careful attention is needed and a lot of work.

Prevention is the key, but prevention is not always simple in the clinical day by day setting. Coaches are often not very keen on taking time off from the ordinary team and individual training for prevention. They often have short-term goals, sometimes due to their short-term contracts. Their main goal is often the next match and not the next season; they might not even be around for the next season. Therefore, it is very much up to us, the team physicians (doctors, physiotherapists and others working with players’ health over the season) to give long-term prevention a thought. There are several important issues, like the pre-season work, with individual strength training programmes, enough time to recover from muscle/tendon injuries and enough time to recover after surgery (remember, this often takes double the time that we – the team doctors – inform our players about in the first place). But, one of the most important issues is to be aware of the individual differences, and that we must be able to work on a long-term basis. Prevention takes time and compliance, although often difficult and sometimes neglected, is necessary. This is where we – the team physicians – come into play, much more than the coaches. We have the responsibility and we should take it, probably to much more extent than we do today. The main reason is that we have the necessary knowledge to take care of our athletes, both when it comes to treating their injuries, but much more to prevent that these injuries never happen. This is a challenge we must rise to.

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Editorial

References


