Prevalence of low back pain increases in players with a primary spinal angle greater than or equal to 44°8, making this angle a good risk factor to examine in every golfer with low back pain. This knowledge together with further biomechanical evaluation of other low back pain-confounders involved in the swing could possibly lead to more focused technical and muscle training, preventing or treating low back pain in golfers.

Keywords: Functional popliteal artery entrapment; Botulinum toxin; Exercise-related leg pain

Introduction.– Exercise-related leg pain is frequent in sport pathology. Functional popliteal artery entrapment, in absence of anatomical vascular or muscular abnormality, may be the cause. Its diagnosis is difficult, requiring the performance of dynamic tests. Surgical exploration confirms the absence of anatomical abnormality, but provides uncertain results from a therapeutic point of view. We report the case of a patient presenting with exercise-related leg pain, in link with bilateral functional popliteal artery entrapment, who was proposed a treatment by botulinum toxin injection in the gastrocnemius muscles.

Observation.– Patient X, 27-years-old, presents with typical exercise-related pain in the posterior side of both legs during running. He is initially treated for bilateral tibial periositis, without any efficacy on pain at running resumption. After a two years evolution, Patient X underwent surgery of bilateral aponeurotomy of the antero-external compartments of the legs for an exercise-related compartment syndrome. No improvement is noted, and the patient remains very limited during effort. After 6 years of evolution, the diagnosis of bilateral functional popliteal artery entrapment is made and confirmed by different static and dynamic imaging examinations. A right, then left surgical popliteal arteriocaly is performed, and allows a partial and transient improvement of pain. In view of the persistence of pain after 9 years of evolution, Patient X consults in our department. We then perform a botulinum toxin injection in two sites, in each gastrocnemius, after having reconfirmed the diagnosis of functional popliteal artery entrapment. At 18 months, the results are very positive, with absence of painful recurrence despite resumption of sport practice. The disappearance of signs of arterial compression during dynamic Doppler ultrasound is also noted, as well as an improvement of the indices of systolic arterial pressure in the ankles following effort.

Conclusion.– This observation highlights the difficulty to diagnose symptomatic functional popliteal artery entrapment. In view of limited therapeutic possibilities, the injection of botulinum toxin in the gastrocnemius muscles appears to be an efficient treatment. Further investigations are needed.

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Case report

The aim of this study is:

– to determine whether a cut-off primary spinal angle-value exists at which the prevalence of low back pain increases.

Keywords: Plantef-rich plasma; PRP; Inflammation; Side effect

Low back pain in golfers: Research on the influence of the starting position

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Introduction.– Low back pain has a high prevalence in golfers. The strain on the lower back during the golf swing has been studied extensively through biomechanical models. An increased primary spinal angle (angle between a line from C7 to L4 through the spine and a line perpendicular to the floor) has been suggested as a risk factor for LBP in golfers. However, this hypothesis has never been tested.

The aim of this study is:

– to compare the mean primary spinal angle in golfers with and without low back pain;

– to determine whether a cut-off primary spinal angle-value exists at which the prevalence of low back pain increases.

Subjects and methods.– Fifty-five players were evaluated based on a questionnaire on low back pain and a measurement of their primary spinal angle in the starting position.

Results.– Twenty-eight and twenty-seven players were categorized as players with and without LBP respectively. The mean primary spinal angle for players with low back pain (45.47°) was significantly higher than for players without low back pain (41.62°) (P = 0.017). ROC-analysis indicated a primary spinal angle of 44° as the best cut-off value. 69% of golfers with a primary spinal angle less than 44° never had low back pain, while only 26% of players with a primary spinal angle greater than or equal to 44° never had low back pain.

Discussion.– This study shows that players with low back pain had a higher mean primary spinal angle than players without low back pain, and that the prevalence of low back pain increases in players with a primary spinal angle greater than or equal to 44°, making this angle a good risk factor to examine in every golfer with low back pain.

Keywords: Amyotrophic lateral sclerosis; Football; Body; Health

Chronic diseases and athletes: Characteristics of amyotrophic lateral sclerosis

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