

CASE STUDY: TREATING SUBTOTAL ADDUCTOR LONGUS MUSCLE DAMAGE

IN PROFESSIONAL SPORTSPEOPLE



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INTRODUCTION

The purpose of this research was to assess long-term results of conservative therapy of subtotal adductor longus muscle damage in football players of various professional levels.

The relevance of this research is determined by the high occurrence of injuries of this muscle group in elite professional footballers.

Specifically, according to data provided by the UEFA, in the years of 2016–2017 there were a total of 795 injuries per 21 teams taking part in the Champions League tournament, and of those, 120 injuries were related to groin region muscles, with 2/3 of these affecting hip adductor muscles.

Another major problem is the high occurrence of relapses for this kind of injuries, reaching 15 % according to the authors’ data, as well as a significant proportion of major injuries (grades 3c–4) in the total number (1).

METHODS

Treatment results were summarized for 6 professional football players aged 25 to 33 with subtotal adductor longus muscle damage in the region of proximal insertion. In all cases the diagnoses were made using the classification provided by the British Athletics association (2). According to it, all injuries under examination were graded 3b–3c.

All the footballers had been offered to undergo surgery (anchor fixation), which they had refused prior to hearing an alternative opinion.

In view of an insubstantial decline (15–20%) in the damaged hip's muscle strength, it was decided to proceed with initial conservative therapy.

Therapy included single platelet-rich plasma (PRP) injections (3–5 times at intervals of 7–10 days), cryotherapy (in the first 5 days of treatment sessions of 15–20 minutes 3–4 times a day; single sessions after workouts or training practice), and physiotherapy (electromagnetic therapy and electrical miostimulation).

PRP was obtained using a centrifuge (BTI, Spain) following the standard procedure. The patients were injected with 8–10 ml of PRP containing 650,000–700,000 platelets per 1 ml.

NSAIDs were not used due to a possibility of them negatively affecting reparative processes.

The patients then moved on to therapeutic physical exercise as soon as the pain syndrome was relieved and were encouraged to maintain their normal pace when walking.

Treatment progress was assessed using a specially designed pain assessment scoring scale that provides for evaluating pain syndrome intensity when engaging in various kinds of football-specific activities that involve physical exertion.

The criterion for granting clearance to rejoin the base team was scoring 1–2 pts against the scale developed by the authors.

RESULTS

Treatment 45-60 days

Following a course of conservative therapy, all footballers returned to their normal regular training activities. None of the cases was marked by complications during treatment. Treatment lasted 45–60 days.

Monitoring 6-12 months

In all cases, treatment outcomes were monitored over the course of 6–12 months following treatment cessation, and in none of the cases any limitations of the players' professional activity were identified.

Prophylactic 3 times a week

All the footballers continue to do specially designed sets of physical exercises as a preventative measure against any possible relapses 3 times a week, with sessions lasting 30–40 minutes.

CONCLUSIONS

Thus, in some cases, where the affected region suffers only an insubstantial decline in muscle strength, it is possible to treat the injury with conservative methods, which has an added benefit of allowing for a quick and quality return to normal activities within the base group of players regardless of their professional level.

References

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