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THE EFFECT OF KINESIO TAPING ON CALF'S INJURIES PREVENTION IN TRIATHLETES DURING COMPETITION. PILOT EXPERIENCE.

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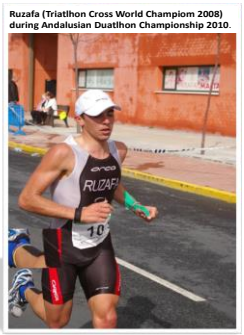
INTRODUCTION. Triathlon is a popular sport that combines swimming, cycling and running in a unique event. The correct accomplishment of certain technical skills needs high values of flexibility in certain joints[2]. Ankle's mobility turns out essential, mainly for swimming crawl and to make possible a good reactivity in the impulse when running[2].
The Kinesio tape (KT) allows an elongation of 130-140 % over its length, and has approximately the same weight and thickness that the skin[6,8,12]. It can be applied theoretically to any muscle or joint of the body[13]. It can be worn up to 4 days without interfering with the daily hygiene and without been modified its adhesive's properties[8].
According to the muscular functions there is thought that KT might improve the sport's performance[11]. In last years the use of KT has being increased[8], it is widely used to prevent injuries in sport[3,5]. With the KT it is possible to improve the muscular function regulating the muscle tone[12]. KT is an alternative taping technique, based on the functions of the tape, improves range of motion[7,12], thanks to the decrease of the tone in the muscles on which it is applied [9].
The KT was applied on the calf of the triathletes with the aim to relax, to diminish the muscular tone and to avoid contractures and / or cramps during the competition.

METHODS. During year 2010, in regional and national races KT was applied on the calves of several healthy triathletes of Triathlon Añoreta Team. Before start the warm up the KT was applied in both legs through "I" technique. After the race triathletes were evaluated about perceived pain and soreness on gastrocnemius and soleos muscle by Borg's scale CR10.


Ruzafa (Triatlhon Cross World Champiom 2008) during Andalusian Duatlhon Championship 2010.

RESULTS. During the different competitions in which it was proved, none of the sportsmen suffered contractures or cramps in the musculature of the calves, and according to the scale CR10[1] the perceived pain was zero or not more than 2.


One of the authors during duatlhon of Torre del Mar (Málaga) 2010.

DISCUSSION and CONCLUSIONS. After the KT being applied on the calf, the sportsmen were recounting good sensations, more firmness, and absence of pain or soreness when they existed before. It can be useful in decrease of painful processes[4]. When the competitions are done in hot environment, and the race presents much height difference it is quite common to recount soreness when not contraction or cramp in the calf muscles and / or soleos due to his high solicitation (as during the Spanish Championship of Duathlón in Gijon 2010). The KT presents undulations on the back that, theoretically, they provoke an elevation of the epidermis and in consequence an improvement of local blood circulation[7]. Probably this improvement of the blood circulation during the competition is one of the reasons of its efficiency. Its application on the muscles of the calves improves significantly the flexibility[10]. Based on these experimental test and properties of the KT, it is possible to recommend its use for triathletes and duathletes for injuries prevention and to avoid contractures or cramps during the competition.

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-TÍTULO:

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RESUMEN:

Triathlon is a popular sport that combines swimming, cycling and running in a unique event. The correct accomplishment of certain technical skills needs high values of flexibility in certain joints[2]. Ankle's mobility turns out essential, mainly for swimming crawl and to make possible a good reactivity in the impulse when running[2]. The Kinesio tape (KT) allows an elongation of 130-140 % over its length, and has approximately the same weight and thickness that the skin[6,8,12]. It can be applied theoretically to any muscle or joint of the body[13]. It can be worn up to 4 days without interfering with the daily hygiene and without been modified its adhesive's properties[8].

According to the muscular functions there is thought that KT might improve the sport's performance[11]. In last years the use of KT has being increased[8], it is widely used to prevent injuries in sport[3,5]. With the KT it is possible to improve the muscular function regulating the muscle tone[12]. KT is an alternative taping technique, based on the functions of the tape, improves range of motion[7,12], thanks to the decrease of the tone in the muscles on which it is applied [9]. The KT was applied on the calf of the triathletes with the aim to relax, to diminish the muscular tone and to avoid contractures and / or cramps during the competition.

CONCLUSIÓN: After the KT being applied on the calf, the sportsmen were recounting good sensations, more firmness, and absence of pain or soreness when they existed before. It can be useful in decrease of painful processes[4]. When the competitions are done in hot environment, and the race presents much height difference it is quite common to recount soreness when not contraction or cramp in the calf muscles and / or soleos due to his high solicitation (as during the Spanish Championship of Duathlón in Gijon 2010). The KT presents undulations on the back that, theoretically, they provoke an elevation of the epidermis and in consequence an improvement of local blood circulation[7]. Probably this improvement of the blood circulation during the competition is one of the reasons of its efficiency. Its application on the muscles of the calves improves significantly the flexibility[10]. Based on these experimental test and properties of the KT, it is possible to recommend its use for triathletes and duathletes for injuries prevention and to avoid contractures or cramps during the competition.

<u>Lugar donde se realizó</u>: Campeonato de España de Duatlón olímpico en Gijón 2010