

L34 - Statistical analysis of physiotherapeutic means used in the recovery of muscle injuries in athletes

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Abstract

Introduction: The competitive sporting activity carried out under the conditions of total employment, in order to achieve the best performances, is often at the limit of the individual possibilities. Exceeding these limits often leads to injuries of muscle tissue.

Material method: This study was conducted on a group of 15 athletes within the age of 18-35 years. All study participants benefited from initial and final assessment consisting of: muscle testing, articular testing, somatometry and Visual Analog Scale (VAS).

Between the two evaluations, they benefited from a treatment protocol consisting of: passive stretching, neuroproprioceptive facilitation techniques (slow reversal, slow reversal with opposition) and therapeutic exercise.

The data obtained from these evaluations were quantified, analyzed and processed using the statistical programs SPSS and Statistics 7.

Results: After comparing the results obtained, an increase in articular mobility tested with concomitant increase in muscle strength in each patient was observed. The somatometry obtained in the evaluations also changed, lowering the values below those initially obtained. This shows a decrease in edema recorded by each patient, and this result automatically results in lowering the VAS.

The statistical processing confirmed our results. The pressure map constructed with the help of the collected results helps us with a better choice of treatment as well as a real-time comparison with the standard literature results.

Conclusion: Following the results of the proposed physiotherapeutic treatment for muscle injuries, it has a positive effect. physiotherapeutic treatment had led to an increase in articular mobility, an increase in muscle strength, a decrease in edema, and a decrease in pain experienced by patients.

Statistical programs have provided a qualitative contribution to kinetotherapeutic treatment by simulating plant-pressure maps, showing the therapist's permanent points of treatment.

Keywords: physiotherapy, muscle injuries, statistical processing, athletes