



INTERNATIONAL CONGRESS ON NATURAL, HEALTH SCIENCES AND TECHNOLOGY

BOOK OF ABSTRACTS



IBCSS25

*10th International Balkan Conference
in Sport Sciences*

ISCAS25

*9th International Scientific Conference
on Applied Sciences*



ISCFM25

*8th International Scientific Conference
of the Faculty of Medical Sciences*

ICNSM25

*7th International Conference of Natural
Sciences and Mathematics*



ICFTN25

*5th International Conference of Food
Technology and Nutrition*

ICSAF25

*3rd International Conference on
Sustainable Agriculture Farming Systems*



7 – 8 May, 2025
University of Tetova



**International Congress on Natural, Health Sciences
and Technology**

Book of Abstracts

7 – 8 May, 2025

Tetova, Republic of North Macedonia

ISBN: 978-608-217-146-3

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Publisher: University of Tetova

Publication Title: Book of Abstracts of the International Congress
on Natural, Health Sciences and Technology

Copyright holder: University of Tetova

Editor: Prof. Dr. Jusuf Zejneli

Lector: Hatixhe Halimi

Full name of the printing house: Arbëria Design, Tetovo

Year of issue and printing: 2025

Place of issue: Tetovo

Units: 500

ISBN: 978-608-217-146-3

**International Congress on Natural, Health Sciences and
Technology 2025 covers:**

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- **9th International Scientific Conference on Applied Sciences**
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- **7th International Conference of Natural Sciences and
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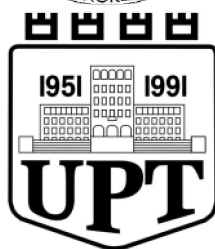
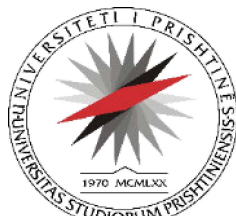


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**COMPARISON OF THE EFFECTIVENESS OF TWO
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RUPTURE OF THE HAMSTRING MUSCLES**

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COMPARISON OF THE EFFECTIVENESS OF TWO APPROACHES IN REHABILITATION OF PARTIAL RUPTURE OF THE HAMSTRING MUSCLES

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Abstract

Injuries of the hamstring muscle group are frequently encountered traumas in athletes. The most common form of injuries are partial and complete ruptures. These injuries lead to the loss of psychomotor qualities but also represent a field for secondary lesions such as disruption of the neurodynamics of the n. ischiadicus and vascular disorders (Heiderscheit et al. (2010), Opar (2020), Butler (2022), Shacklock (2018). Many authors can be found in the literature (Renstrom (2021), Bandy et al. (2019), Feland et al. (2021)) who suggest stretching in the rehabilitation of these patients. The aim of this research is to compare the effects of different manual stretching techniques on the elasticity of the hamstring muscles and the level of pain and muscle strength. A total of 20 individuals with partial rupture of the hamstring muscles were included in the study. Of them, 11 were men and 9 were women. The patients were aged 18 to 26 years. The research was conducted from 15.05 to 15.06.2023 in the Physiotherapy office Physiotema Kochani. In all patients, we observed reduced muscle elasticity with at least 20 degrees of shortening of the active extension in the knee. Patients were divided

into two groups: control and Group B experimental. The treatment methodology in both groups included kinesitherapy aimed at improving hip and knee mobility and increasing muscle strength. In Group A, as a supplement, the kinesitherapy program was enriched with post-isometric relaxation of all affected muscles. In Group B, we applied dry needles along the sciatic nerve. The results show a positive effect of the applied therapeutic agents. In the experimental group, the reduction of pain is more pronounced, and in the control group, the recovery of mobility.

Keywords: Muscle relaxation, stretching, post isometric relaxation, dry needling, hamstring muscles.