

THE ROLE OF MAST CELLS IN CARBON TETRACHLORIDE INDUCED RAT SKELETAL MUSCLE TISSUE DAMAGE

Ljubiša M. Lilić¹, Dragan Toskić¹, Rade Ž. Stefanović¹, Branimir B. Mekić¹,
Ivan R. Ilić², Nikola M. Stojanović³

¹University of Priština, Faculty of Sport and Physical Education in Leposavić, Priština, Serbia

²University of Niš, Faculty of Medicine, Institute of Pathology, Niš, Serbia

³University of Niš, Faculty of Medicine, Niš, Serbia

Contact: Nikola M. Stojanović
Bulevard dr Zoran Djindjić 81, 18000 Niš, Serbia
E-mail: nikola.st90@yahoo.com

Animal models demonstrating skeletal muscle (SM) disorders are rarely investigated, although these disorders accompany liver disorders and can occur during prolonged exercise/training. It is speculated that mast cells, normally present in the interstitial SM tissue, are involved in the pathophysiology of different SM disorders. Thus, the present study aims to analyze, on the histopathological level, the involvement of mast cells in acute rat intoxication with carbon tetrachloride (CCl₄). Biceps and gastrocnemius muscle were obtained from male Wistar rats acutely exposed to CCl₄ (1 ml/kg) and the pathological analysis was performed on Toluidine blue stained tissue sections. The obtained results were statically compared with those from a control group using Student's t-test. In SM tissue obtained from the control group mast cells were found only in the interstitium, while in those that received CCl₄ Carbon tetrachloride, Skeletal muscles, Mast cells they were located mainly near the blood vessels. Also, in the experimental group treated with CCl₄ mast cells were more abundant and were in percents more degranulated than those found in the control group. Thus, one can say that the herein presented model of CCl₄ Carbon tetrachloride, Skeletal muscles, Mast cells-induced SM damage is partially dependent on the activity of mast cells.

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