STANDARDIZATION OF EVALUATION HYPERALGESIA IN RATS WITH NEUROPATHIC PAIN INDUCED BY SPARED NERVE INJURY

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INTRODUCTION: Neuropathic pain is a maladaptive inadequate somatosensory activation nociceptive pathway resulting from injury to the central nervous system and/or peripheral nervous system, resulting in a debilitating condition. Several experimental models were developed with the purpose of deepening the understanding of neuropathic pain and its mechanisms, including the model of spared nerve injury. Objectives: Standardize the method of neuropathic model spared nerve injury with evaluation of cold and mechanical hypersensitivity for its use as a model in UFGD. Material and methods: Male Wistar rats (± 250g) were divided into groups (n=6) and were anesthetized after the tibial and fibular nerves tied, then cut, leaving the sural nerve intact. The Sham had no nerve damage. The control group and Sham received saline and the positive control received subcutaneously 10 mg/kg ketamine daily. The mechanical sensitivity was evaluated using von Frey electronic while hyperalgesia to cold was evaluated by testing the acetone until 15 days after surgery. Results and discussion: In acetone test the sensitivity was increased (74 ± 8%) in ketamine groups when was compared to control on the 15th day. The mechanical sensitivity was reverted (77 ± 5%) by ketamine in relation to control. Conclusion: Thus, it is concluded that the sciatic nerve surgery presents itself as a reliable model for study of neuropathic pain through the tests of sensitivity to cold and mechanical sensitivity.