Natureza do trabalho: Resumo

TÍTULO

INHIBITORY EFFECTS OF THE EXTRACT AND FRUTICULIN A OBTAINED FROM *SALVIA LACHNOSTACHYS BENTH* LEAVES IN GP120-INDUCED COLD HYPERALGESIA IN MICE

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ABSTRACT

Introduction: *Salvia lachnostachys Benth* is endemic to southern Brazil and according to a chemical study long-chain aliphatic acids and terpenoids are its components. The phytochemical study demonstrated the presence of the diterpene fruticulin A and ursolic and oleanolic acids (1). It has been validated that both *Salvia lachnostachys* and its compound Fruticulin A have anti-inflammatory and antihyperalgesic activities in animal models (2). Neuropathic pain in HIV infection also involves the role of gp120, which contributes to the hyperalgesic behavior in rodents when administered peripherally or centrally producing the release of inflammatory cytokines (3, 4). **Objectives:** The present work has investigated the antihyperalgesic effect of SLEE and Fruticulin A induced by intrathecal injection of gp120 in mice. **Material and Methods:** Male *Swiss* mice (n=6) received gp120 (300 pg) or sterile saline (naïve), intrathecally. One hour before injections animals were treated orally with SLEE (100 mg/kg) or Fruticulin A (3 mg/kg) or saline solution, as a control. Cold sensitivity was evaluated with acetone test after 2 and 3 hours of the injections. A syringe with 30 µL of acetone was positioned close to the back right paw of the animal and liquid was released. Animals were observed for 20 seconds and the number of paw withdrawal was counted (5). **Results:** After intrathecal administration, gp120 was not capable to decrease cold hypersensitivity in mice when compared to naive group. SLEE but not Fruticulin A, significantly increased cold sensitivity after 2 and 3 hours of gp120 injection, when compared with control group. Maximal inhibition was 48±11% after 3 hours of gp120 injection. **Discussion and Conclusion:** Oral treatment with SLEE but not Fruticulin A have showed antihyperalgesic effects in cold sensitivity model of nociception. Further analyses should be performed to elucidate the mechanism of gp120 induced-hyperalgesia and what would be SLEE mechanism of action.

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