Natureza do trabalho: Resumo

TÍTULO

ANTIHYPERALGESIC ACTIVITY OF THE ESSENTIAL OIL OF Piper glabratum

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RESUMO

Introduction: Piper glabratum Kunth (Piperaceae), popularly known in Brazil as pepper, false jaborandi, among others, is poorly studied in pharmacological and toxicological fields (KATO; FURLAN, 2007). The phytochemical studies and anti-parasitic activity of this species was performed (AMORIM et al., 2007). Benzoic acid derivatives of P. glabratum have antiparasitic activity against Leishmania spp. and Trypanosoma cruzi (FLORES et al., 2008). Objectives: The present work has investigated the antihyperalgesic activity of the essential oil of Piper glabratum leaves (EOPG) in carrageenan induced increase in mechanical and cold hyperalgesia in mice. Material and Methods: Male Swiss mice (n=6 / group) received saline (0.9%, p.o), EOPG (700 mg / kg, p.o) or dexamethasone (1 mg / kg, s.c). After 1 h, the animals received carrageenan injection (300 ug / paw) into the right hind paw and saline in the left hind paw. Mechanical sensitivity was measured with an electronic Von Frey apparatus and cold sensitivity with acetone test after 3 and 4 hours of the injections. Results: Carrageenan increased the mechanical hyperalgesia and cold sensitivity in animals control group. The EOPG prevented 100% mechanical hyperalgesia induced by carrageenan after 3 and 4 hours of the injection of carrageenan when compared to the control group, as well as dexamethasone. The decrease of cold sensitivity was induced by EOPG cold at 2 and 3 hours after carrageenan injection with Imax of 36 and 23% respectively and dexamethasone decrease 64 and 33% in relation to control group. Discussion and Conclusion: These results shows for the first time the ability of EOPG to antagonize the carrageenan induced mechanical hyperalgesia and cold sensitivity.

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References

