
Pfaffia paniculata. Diminui a angiogênese: teste padrão em córnea

Pfaffia paniculata (Brazilian ginseng) methanolic extract reduces angiogenesis in mice.
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Abstract
Pfaffia paniculata (Brazilian ginseng) roots have been indicated for the treatment of several diseases. Our studies have shown that P. paniculata roots present antineoplastic effects and cancer chemopreventive activity in a mouse hepatocarcinogenesis model. The purpose of this study was to investigate the effects of the Brazilian ginseng on corneal angiogenesis in mice. We first conducted a toxicological study employing 250, 500, or 1000 mg/kg/day of the methanolic extract of P. paniculata roots by gavage to BALB/c mice. Animals did not lose weight during the treatment nor presented histopathological alterations. The effect of this root on angiogenesis in the cornea of BALB/c mice was then assessed. Male mice were treated, by gavage, once a day, with doses of 250, 500, or 1000 mg/kg of methanolic extract of P. paniculata powdered root for 10 days; filtered water was used as control. Corneal cauterization was accomplished by the contact of a silver nitrate crystal on the central area of the cornea, in the 5th day of treatment with P. paniculata, which continued thereafter; the animals were euthanized on the 6th day after cauterization. Newly formed blood vessels were filled with India ink, and the corneas were routinely processed. Blood vessels were quantified in an image analysis system. A smaller total area of neovascularization in the mouse cornea was observed in animals treated with 1000 mg/kg of the methanolic extract of P. paniculata. These results indicate an antiangiogenic effect of this extract. The mechanisms of this antiangiogenic activity of P. paniculata should be further investigated.
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