LABORATORY AND PRECLINICAL STUDIES ON THE ANTI-INFLAMMATORY AND ANTI-OXIDANT PROPERTIES OF ROSEHIP POWDER IDENTIFICATION AND CHARACTERIZATION OF THE ACTIVE COMPONENT GOPO®

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Abstract

Non-steroid anti-inflammatory drugs are alleged to exhibit a variety of side effects. Several claims have been made that rosehip may reduce pain in patients suffering from inflammatory diseases such as osteoarthritis. The underlying studies demonstrate that an aqueous extract of rosehip from *Rosa canina L*. inhibited the chemotaxis as well as chemilluminescence of human peripheral blood leukocytes in vitro. (1, 2) Using a bioassay-guided fraction of the extract, the active principle was shown to be a galactolipid named GOPO®. (3, 4) Its content is in the present standardized rosehip powder quite high due to a special manufacturing process. *In vitro* studies demonstrate that rosehip powder exhibits anti-inflammatory as well as anti-oxidant activities. It neither inhibits platelets nor influences fibrinolysis and the coagulation cascade. Especially patients with cardiovascular diseases benefit from the availability of a safe and effective pain medication.

- Winther K, Rein E, Kharazmi A. The anti-inflammatory properties of rose-hip. Inflammopharmacology 1999; 7:63-68.
- 2 Kharazmi A, Winther K. Rose hip inhibits chemotaxis and chemiluminescence of human peripheral blood neutrophils in vitro and reduces certain inflammatory parameters in vivo. Inflammopharmacology 1999; 7:377-386.
- 3 Kharazmi A, Høiby N, Doring G, Valerius NH. Pseudomonas aeruginosa exoproteases inhibit human neutrophil chemiluminescence. Infection Immunity 1984; 44:587-593.
- 4 Larsen E, Kharazmi A, Christensen LP, Christensen SB. An anti-inflammatory galactolipid from rose hip (Rosa canina) that inhibits chemotaxis of human peripheral blood neutrophils in vitro. Journal of Natural Products 2003; 66:994-995.

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