

P16: POSSIBLE ANTI-INFLAMMATORY MECHANISMS OF PURE COMPOUNDS FROM *VENTILAGO HARMANDIANA*.

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ABSTRACT

Pure compounds, VR9177 and VR9179, obtained from the heartwood of *Ventilago harmandiana* exhibited moderate to strong anti-inflammatory activity in the ethyl phenylpropiolate (EPP) mouse ear edema model (unpublished data).

In the present study, the pure compounds were investigated for their activities on neutrophil functions, including neutrophil chemotaxis, superoxide anion generation (SAG), myeloperoxidase (MPO) production, elastase release, neutrophil apoptosis and lymphocyte proliferation. Both compounds were firstly investigated for their cytotoxic effect, cell viability was not significantly affected by these compounds (1-100 μ M) as shown by XTT assay. VR9177 (1-100 μ M) and VR9179 (1-100 μ M) were found to inhibit fMLP-induced neutrophil functions, including neutrophil chemotaxis, superoxide anion generation (SAG), myeloperoxidase (MPO) production, elastase release, in a concentration-dependent manner. But VR9177 (1-100 μ M) and VR9179 (1-100 μ M) showed no effect on neutrophil apoptosis as quantified by morphological and flow cytometric analysis. Furthermore, both compounds also inhibited lymphocyte proliferation as quantified by [³H] thymidine incorporation. These findings suggest the inhibition of human neutrophil functions and lymphocyte proliferation by VR9177 and VR9179, that are not due to cytotoxic activity, may be attributed, in part, to their anti-inflammatory activity.

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