

Abstracts (Oral Presentation)**Antioxidant and Anti-inflammatory Activities of Ruean-Khi-Nok Remedy and Herbal Components**

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Abstract

Introduction: Psoriasis (Ps) is an immune-mediated chronic inflammatory skin diseases that affects quality of life. The pathogenesis of psoriasis has been associated with increased of reactive oxygen species (ROS) production. Ruean-Khi-Nok (RKN) remedy, a topical preparation composed of nine plants, has been used for treatment of psoriatic skin. However, there is no report on its biological activity related to treatment of psoriatic skin including antioxidant and anti-inflammatory activities.

Objectives: To evaluate antioxidant and anti-inflammatory activities of Ruean-Khi-Nok remedy and its herbal components.

Methods: The 95% and 40% ethanolic extracts of RKN remedy and its components were investigated for *in vitro* antioxidant (ABTS and DPPH radical scavenging assay) as well as anti-inflammatory activities (Nitric oxide inhibitory assay) on RAW264.7 cell line.

Results: The 95% ethanolic extracts of RKN remedy exhibited potent ABTS and DPPH scavenging activity (EC_{50} values of 20.32 ± 0.30 and 15.00 ± 0.33 $\mu\text{g/mL}$, respectively), as well as NO inhibitory assay (IC_{50} values of 15.19 ± 1.57 $\mu\text{g/mL}$). Among its components, the 95% ethanolic extract of *Piper wallichii* displayed the best antioxidant (EC_{50} values of 6.17 ± 0.19 and 3.44 ± 0.10 , respectively for ABTS and DPPH radical scavenging assay) and anti-inflammatory activities (IC_{50} values of 10.75 ± 0.75 $\mu\text{g/mL}$ for NO inhibitory assay).

Conclusions: The RKN remedy and its herbal components have a promising antioxidant and anti-inflammatory activities which supported traditional use for treatment of psoriatic skin and inflammatory-related diseases.

Keywords: Ruean-Khi-Nok Remedy, Psoriasis, Antioxidant, Anti-inflammation

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