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딜레니아 추출물의 항염증 효능과 세포독성안전성

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Anti-Inflammatory and Cytotoxic Effects of Dillenia Extracts

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Dillenia turbinata Finet & Gagnep. has been known to be used for couch cold, Clerodendrum japonicum (Thunb.) Sweet for pimple, Garcinia tinctoria (DC.) Dunn for oedema. and Garcinia cowa Roxb. for detoxification for a long time. To determine whether these plants have anti-inflammatory effects, we performed nitric oxide (NO) assay. Raw264.7 cells were stimulated with LPS and treated with methanol extracts of these plants. Garcinia cowa Roxb. did not relatively show anti-inflammatory effect, compared to Redcharm extract control as previously used. However, Dillenia, Clerodendrum and Garcinia tinctoria demonstrated significantly higher anti-inflammatory effects in NO assay.

We then tested whether these extracts have cytotoxic effect with MTT assay in Raw264.7 cells. Dillenia, Clerodendrum, Garcinia tinctoria and Garcinia cowa Roxb. showed almost similar cell survival rate. This implies that all these plants have almost no significant cytotoxic effects.

Taken together, these results suggest that Dillenia, Clerodendrum, and Garcinia tinctoria, but not Garcinia cowa Roxb. are a good anti-inflammatory agent to be developed for medical applications.

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