Antinociceptive and anti-inflammation Studies of *Lobelia chinensis* Lour

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Lobelia is generally topical in Taiwan have snake bites, carbuncles boils, bruises; orally with warm rash; heat jaundice; liver cirrhosis and various cancers of the pharmacological activity. Therefore, this study used lobelia for the study material. For the antioxidant, analgesic, anti-inflammatory experiments.

The acetic acid writhing and formalin licking test, lobelia extract of the analgesic effect, in addition to in vitro LPS-induced inflammation of RAW 264.7 cell line experiments, and in vivo experiments with λ-carrageenan-induced paw edema test in mice to study the effect of anti-inflammatory; test its determination foot tissue catalase, GPx, inflammation of the blood medium TNF-α, NO and other content, and Western blot test method to verify that COX-2 and iNOS change, to examine the analgesic and The molecular mechanism of anti-inflammatory.

The results show that ethyl acetate layer lobelia extract (1.0 g / kg) for the acetic acid-induced writhing response significantly inhibit the effect, for the formalin-induced licking response lobelia ethyl acetate extract (0.625, 1.25, 2.5g/kg) in mice can be significantly reduced licking time later, another anti-inflammatory aspects, in vitro experiments, lobelia extract (250,125,62.5 μg / mL) significantly inhibited LPS-induced inflammation of RAW 264.7 and the media to generate NO (iNOS , COX-2), lobelia ethyl acetate extract (0.625, 1.25, 2.5g/kg) and can inhibit the λ-carrageenan-induced

paw edema reaction in mice, and inhibition of foot tissue inflammation media (COX -2, iNOS).

These results show that lobelia extract and its main components all have analgesic and anti-inflammatory effect. And its mechanism of studies have shown that pain in its inhibited writhing induced by acetic acid and formalin-induced inhibition of post-inflammatory pain, we infer the analgesic effect and inhibition of inflammation-related; and in anti-inflammation, the inhibition of foot inflammation of the plantar media concentration, scavenging free radicals, reduce inflammation in the paw tissue lipid peroxidation injury; reduce inflammation in blood concentrations of TNF-α medium to inhibit COX-2 production; inhibition of iNOS concentration, thereby reducing the NO generation, to achieve the anti-inflammatory effect.

In this study, lobelia pharmacological activity will be assessed, we will model lobelia antioxidant extraction layer screening of all, in order to guide the active ingredients of the separation. The anti-inflammatory analgesic will pharmacological activity patterns, and anti-liver tumor model to model, and we hope the results of this study will be the development and utilization of Taiwan folk medicine has been helpful.

Keyword: Lobelia, antioxidant, polyphenols, anti-inflammatory, hepatoprotective, anti-tumor