

Anti-inflammatory Activity Effect of *Ficus carica* and *Ziziphus mauritania* leaves

MUHAMMAD FARIEZ KURNIAWAN^{1*}, MUH INDRA IRAWAN¹, ARIFFADLI PRAKOSO¹, NINING SUGIHARTINI²

¹School of Pharmacy, Faculty of Medicine and Health Sciences, Universitas Muhammadiyah Yogyakarta, Indonesia

²Faculty of Pharmacy, Universitas Ahmad Dahlan Yogyakarta, Indonesia

*Corresponding Author : fariez@umy.ac.id

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ABSTRACT

Figs leaves (*Ficus carica* Linn.) and Sidr leaf (*Ziziphus mauritania* Linn.) are rich in phytochemical, one of them is flavonoid. These two plants have been used as a traditional medicine to treat several ailments, such as inflammation. On The other hand, the usage of fresh figs and sidr leaves is uncomfortable and the efficacy of the effect is immeasurable. The aim of this study was to determine the presence of the anti-inflammatory effect on the extract of the raw material and also to create an optimal cream formulation for the extract.

This study used 15 groups of male *BALB/c* mice strand which were given treatment as follows: normal control, negative control, positive control, sidr extract 2,5%; sidr extract 5%; figs extract 2,5%; figs extract 5%; combination extract 2,5%; combination extract 5%; sidr cream 2,5%; sidr cream 5%; figs cream 2,5%; figs cream 5%; combination cream 2,5%; combination cream 5%. The anti-inflammatory activity was evaluated by measuring the thickness of epidermis in the skin tissue and descriptive observation of inflammatory cells and expression of COX-2. Earlier, mice were given croton oil on the back to induce the inflammation. After 3 days treatment of cream and extract, mice were sacrificed to obtain histopathological dosage made of hematoxylin-eosin staining and immunohistochemistry COX-2.

The result showed group control sidr extract 2,5%; sidr extract 5%; figs extract 2,5%; figs extract 5%; combination extract 2,5%; combination extract 5%; sidr cream 2,5%; sidr cream 5%; figs cream 2,5%; figs cream 5%; combination cream 2,5%; combination crem 5% had the ability to reduce thickness of epidermis significantly in statistic ($p < 0,05$) compared to negative group control. In other hand, compared to positive group control there was no significant result and the positive control was better in reducing inflammation than the control group.

Keywords : figs leave extract, sidr leaves extract, cream, anti-inflammatory

