



International Journal of PharmTech Research

CODEN (USA): IJPRIF, ISSN: 0974-4304, ISSN(Online): 2455-9563 Vol.12, No.03, pp 75-84, 2019

The Effects of Ethanol Extracts Temu Mangga (Curcuma mangga Val.) to decrease in TNF-a levels, and Colonic Histopathology Picture mice model of inflammatory bowel disease (IBD).

Dian Elco Nora¹*, Kusmardi², Anton Bahtiar¹

¹Department of Herbal, Faculty of Pharmacy, University of Indonesia, Depok, West Java 16424.

²Department of Pathology Anatomy, Faculty of medicine, University of Indonesia, Salemba Raya, Jakarta 10430.

Abstract: Globally it is said that the incidence of *Inflammatory Bowel Disease* (IBD) is 10 cases per 100,000 population. The main focus of the plan is an attempt IBD Therapeutic inhibition of the inflammatory cascade process. Currently the treatment given in cases of *inflammatory boweldisease* is generally still give systemic effects are less profitable and have a promising modality but at a high price. From previous studies Temu mangga (*Curcuma mangga* val) is also known to have anti-inflammatory effects¹. In this study we want to know effectiveness Temu mangga extract (*Curcuma mangga* Val) in lowering levels of serum TNF-α mice and improvement of colonic histopathology picture mouse model of inflammatory bowel disease (IBD). Measurement of TNF-α with Elisa method and colon histopathology picture by coloring HE.Research housed in Laboratory Animal Health Research and Development Agency, Ministry of Health RI .Laboratorium Phytochemicals Faculty of Pharmacy, University of Indonesia.

In this study, there are six groups of animals . There are K0 treatment (baseline), K PD, K MD4, KMD8, K MD16, DS. And a negative control group for comparison were taken and euthanized from each group that has been induced by DSS at day 9. Statistical calculations using ANOVA parametric test for the decline in TNF- α , and a decrease in goblet cells and Scoring HE (method cooper). The calculations show decreased levels of TNF- α , especially in group K MD16. Where the reduction in TNF- α in K MD16 significantly different with K PD. HE score between KMD4, KMD8, and KMD16 produces results that correspond to dose . The effect of temumangga treatment at a dose of 16 mg / mice provide the best results in cell regeneration compared to a dose of 8 mg / mice and 4 mg / mouse. It is shown on the picture Histopathology of the colon was observed and in scores with cooper method.

Keywords: Inflammatory bowel disease, Temu mangga, TNF-o, Dextran Sodium Sulfate.

Dian Elco Nora et al / International Journal of PharmTech Research, 2019,12(3): 75-84.

DOI: http://dx.doi.org/10.20902/IJPTR.2019.120309