

## Effect of *Tinospora cordifolia* Extract on the Liver Histopathology of Balb/c Mice Infected with *Salmonella typhimurium*

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**Abstract :** Typhoid fever is caused by *Salmonella typhimurium*. *Tinospora cordifolia* is a plant species that has a function as a natural immunomodulation. The extracts of *T. cordifolia* modulate the functions of hepatic protective and immune stimulatory. Hepatic protective herb increases the activity of the Kupffer cells. The aim of the research is to know effects of *T. cordifolia* extract on the liver histopathology of Balb/c mice infected *S. typhimurium*. This study was conducted a month in 2015 at Microbiological and Biomedical Laboratories, Faculty of Medicine, University of Brawijaya. There were 5 treatment namely negative control group, a positive control group that injected with *S. typhimurium*, mice group were injected with *S. typhimurium* and treated with 0.225, 0.375, and 0.75 mg /day *T. cordifolia* extract. Liver histopathology was done by light microscope observation in liver paraffin which stained with Hematoxylin-Eosin. The results showed that the positive control has nodular granulomata composed of principal on macrophages with many lymphocytes and few neutrophils. In addition, nodular lesion size was reduced in the treatment group compared to control positive and the presence of polynuclear leukocyte cells was replaced by mononuclear leukocytes. It can be concluded that *T. cordifolia* extract has protection effect and reduce the damage that caused by *S. typhimurium* in the liver.

**Keywords:** Hematoxylin-Eosin staining, liver, leukocyte, *S. typhimurium*, *T. cordifolia* extract.

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