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Dadih Supplementation Effect on Duration of Acute Diarrhea, Secretary IgA and TNF α Level in Mice Induced with Enteropathogenic E. Coli
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Abstract:

Diarrhea is the second leading cause of death among children under 5 years old. There is new paradigm that probiotic can be a supplement to treat diarrhea. Probiotic consists of lactic acid bacteria (LAB) that induces the immunity and increase absorption process in intestinal villi. In West Sumatera, there is traditional probiotic known as dadih from fermented buffalo milk. The study aims to assess the effects of dadih supplementation on acute diarrhea duration, secretary Immunoglobulin A and Tumor Necrotizing Factor alfa level in mice induced with Enteropathogenic Escherichia Coli. There was an experimental analytic with 30 mice as the sample, induced with EPEC, took place in Pharmacy, Biomedical and Pathology Anatomy Laboratory of Medical Faculty Andalas University from June 2016 to May 2017. Subjects were divided into three groups, group without treatment, EPEC induced group, and EPEC induced group given dadih as much as 112 mg/20 gr/day. Statistical analysis was done by One Way Anova, Kruskal wallis and Post Hoc LSD. The result showed mean of diarrhea duration was shorter in the treatment group (4.10 ± 1.52 , $p=0.000$). The mean of TNF- α level was lower in the treatment group (173.18 ± 70.48 , $p=0.056$), and mean sigA level was higher in treatment group (8.69 ± 2.43 , $p=0.208$). Dadih administration shorten duration of acute diarrhea, but do not show any statistically significant effects in reduction of TNF- α , and increasing of sigA level.