

ABSTRACT

THE EFFECTIVENESS OF ANTIDIARRHEAL IN VIVO UNRIPE
WOODEN BANANA EXTRACT (*MUSA PARADISIACA L*) IN MALE
MICE BALB-C STRAIN INDUCED BY *ESCHERICHIA COLI*

Background: In Indonesia, unripe wooden banana (*Musa paradisiaca L*) was a drug that was often used empirically by the people of Senduro village, Lumajang, East Java, to treat diarrhea.

Purpose: To prove the antidiare effect of the banana ethanol extract (*Musa paradisiaca L*) on male mice Balb-C strain induced by *Escherichia coli* bacteria..

Methods : Antidiarrheal testing using post-test only control group design 40 mice was divided into eight groups. one treatment group (normal mice), seven groups induced by *Escherichia coli* bacteria, negative controls were given CMC-Na, positive controls were given Loperamid HCl 0,5 mg/kgBB, 1 mg/kgBB and 2 mg/kgBB and group extracts were given 100 mg/kgBB, 200 mg /kgBB and 400 mg/kgBB observed for 4 hours. Data analysis of frequency of diarrhea, faecal weight and faecal consistency used Kruskal Wallis.

Results: Test results of faecal weight, faecal consistency, frequency Kruskal Wallis showed that was significantly different between treatment groups ($p < 0.05$). From the results of the Mann-Whitney test, the ethanol extract of unripe wooden banana with a dose of 200 mg/kgBB did not significantly different ($p > 0.05$) with the control group Loperamid HCl dose of 0.5 mg / kgBB.. Liquid dilution test results MIC & MBC extract of unripe wooden banana (*Musa paradisiaca L*) at a concentration of 6.25%, 12.5% and 25% showed turbidity and was a growth bacteria, at a concentration of 50% and 100% did not indicate turbidity and was not a growth bacteria .

Discussion : Tanin works as an adstringen that works by shrinking the intestine so that it decreases smooth muscle contraction. Alkaloids can interfere with the formation of peptidoglycone constituents in bacterial cells, thus causing loss of bacterial cell wall function as an osmotic pressure protector. saponins were able to inhibit bacterial growth by inhibiting protein synthesis and reducing the surface tension of bacterial cells resulting in leakage

Conclusion : Unripe wooden banana had been shown to have antidiarrheal activity at an extract dose of 200 mg / kg BB in terms of the parameters of faecal consistency frequency of diarrhea, and faecal weight. The results showed that the higher the dose, the better antidiarrheal activity.