

**ABSTRACT**

**THE EFFECT OF AN ETHANOLIC EXTRACT OF *GYNURA PSEUDOCHINA (L) DC* (DAUN DEWA) ADMINISTRATION ON SERUM TOTAL-CHOLESTEROL, HDL-CHOLESTEROL AND LDL-CHOLESTEROL LEVELS IN HYPERCHOLESTEROLEMIC MALE RATS**

Tajuddin Abdullah

This research was intended to study the effect of an ethanolic extract of *Gynura pseudochina (L) DC* on serum total-cholesterol, HDL-cholesterol, and LDL-cholesterol levels of adult male rats (*Rattus norvegicus*) Wistar strain made hypercholesterolemic by consuming high lipid diet.

Fifty rats aged 3 months, weighting 150 - 250 were used in this study. Ten rats (group Bo) were sacrificed before the consumption of the high lipid diet to obtain the basal level of serum total cholesterol. The remaining 40 were given a high lipid diet for 4 weeks. At the end of this period, again 10 rats were sacrificed (group B1) at which time the total cholesterol level was significantly higher than the Bo group i.e : 68,7 mg/dl and 78,2 mg/dl resp. The remaining 30 rats were then divided into 3 groups of 10 each, i.e. group Po, PI and PII. The high lipid diet continued for 2 weeks more, in which group Po was not given the ethanolic extract, group PI and group PII, were given ethanolic extracts amounting to 150 mg/bw, and 300 mg/bw resp. At the end of the treatment all the rats were sacrificed and the serum lipoproteins were analyzed. The data collected were then analyzed statistically by Multiple analysis of variance (Manova) in significance level of 5 %.

The result showed that the administration of *Gynura pseudochina* ethanolic extract reduced significantly the serum total cholesterol (Po = 81,5 PI = 73,5 PII = 71,0) and LDL-Cholesterol, (Po = 28,0 PI = 20,7 PII = 20,2) while the HDL-cholesterol levels were significantly increased (Po = 46,0 PI = 54,3 PII = 49,8). No significant difference were observed between PI and PII. It was concluded that a dose of 150 mg/bw is sufficient to improve the lipid profile in hypercholesterolemic rats. The active substances which may play a role in this case were thought to be saponin and flavonoid, present in the ethanolic extract of *Gynura pseudochina*.

+

Keywords: *Gynura pseudochina* (Daun dewa), saponins, flavonoids, hypercholesterolemia, lipid profile, total cholesterol, LDL-cholesterol, HDL-cholesterol

