



ABSTRACT

Type 1 diabetes mellitus is one of the most common chronic diseases that can affect patients of all ages. It is caused by insulin deficiency following the autoimmune destruction of the pancreatic beta cells. In this study, the effect of *Nembrotha chamberlaini* ethanolic extract on the blood glucose level and hepato-pancreatic histology of alloxan-induced Type 1 diabetic albino rats was investigated. Twenty-four (24), four to five-week-old male and female rats were divided into five groups: T₀ as the normal control group, T₁ as the diabetic control group, T₂ given 250 mg/kg extract, T₃ given 500 mg/kg extract and T₄ given 750 mg/kg extract dose. After treatment with a single dosage of the extract, the blood glucose levels of the rats significantly decreased ($p < 0.05$), however no significant difference was seen among the effects portrayed by the three extract doses ($p > 0.05$). Histological evaluation showed recovery of the pancreas and the liver, suggestive that the *N. chamberlaini* extract is not a substitute to insulin, but instead, repairs the source of insulin. This study is believed to be the first concrete scientific exploration on the hypoglycemic property of nudibranchs.

Keywords: hypoglycemia, liver, nudibranch, pancreas.