



ABSTRACT

Diabetes Mellitus, a chronic disease that affects many people worldwide, can be managed by commercially-available drugs of which some may lead to undesirable effects. Thus, there is an increase in demand for alternative approaches like polyherbal therapy where combined agents from different plants are used. The aim of this study was to determine the synergistic effects of combinations of *Mirabilis jalapa* L. (Four o'clock) root and *Colocasia esculenta* L. (Schott) (Taro) corm ethanolic extracts on alloxan- induced diabetic albino mice. Coarse powder of dried *M. jalapa* roots and *C. esculenta* corm was refluxed with 70 percent ethanol for an hour, followed by evaporation for the removal of solvent. Hyperglycemia in albino mice was induced by a single dose of alloxan monohydrate (90 mg/kg, i.p.). Extracts with concentrations of 400 mg/kg *M. jalapa*, 400 mg/kg *C. esculenta*, and combination 200 mg/kg *M. jalapa* + 200 mg/kg *C. esculenta* were then administered once a day for 16 days. The effects of the treatments were monitored by determining blood glucose levels. After the administration, results showed that all three treatments reduced the blood glucose levels of the albino mice. However, only the combination treatment was able to significantly reduce the blood glucose levels enough to reverse the diabetic condition. In conclusion, combination of the *M. jalapa* root and *C. esculenta* corm extracts are significantly more effective in lowering blood glucose levels of diabetic albino mice than the individual plant extracts.

Key words: Alternative Medicine, Polyherbal therapy, Diabetes Mellitus, Blood Glucose Level