



ABSTRACT

Diabetes mellitus is a common metabolic disorder and it is rapidly increasing worldwide. There is a growing interest in herbal medicines due to some side effects of the treatments of diabetes like sulphonylureas, biguanides and α -glucosidase inhibitors. The objective of this study is to determine the hypoglycemic potential of *Coffea canephora* Pierre ex A. Froehner (Robusta coffee) fruit pulp extract in alloxan-induced diabetic rats. In this study, the hypoglycemic effect of ethanolic extract of *Coffea canephora* fruit pulp extract at a dose of 100 ppm, 100 ppm with glibenclamide, 300 ppm, and 300 ppm with glibenclamide was evaluated using alloxan-induced diabetic rats. It was found out that robusta coffee fruit pulp extract showed significant ($p=0.0393$) activity. Combination of *Coffea canephora* pulp extract and glibenclamide have no significant effect in lowering blood glucose level of albino rats. *Coffea canephora* pulp extract at 300 ppm has the higher hypoglycemic effect. The hypoglycemic property of *Coffea canephora* pulp extract can be attributed to the presence of alkaloids, flavonoids, saponin, tannins and triterpenes. Therefore, *Coffea canephora* pulp extract can be an effective hypoglycemic substance.

Key words: Coffea canephora, Diabetes mellitus, Glibenclamide, Robusta coffee