This work examined the probable effect of the root bark aqueous extract of *Musanga cecropioides* on normotensive rabbits. Using standard methods, a preliminary phytochemical investigation was carried out on the aqueous extract obtained by decoction method. This was followed by the hypotensive evaluation of the extract and its organic solvent fractions in anaesthetised normotensive rabbits between 10-40 mg/kg. The extract was found to contain saponins, tannins, flavonoids and cardiac glycosides. The aqueous extract reduced the diastolic and systolic blood pressures and the mean arterial blood pressure. At a dose of 10 mg/kg, the aqueous extract of the root produced 16.0 ± 5.9 % fall in arterial blood pressure. This was further decreased by 41.8 ± 2.1 % with a dose of 40 mg/kg. Administration of atropine (0.5mg/kg) before the extract was administered significantly blocked the blood lowering effect of the extract. This indicated the probable involvement of muscarinic receptors in the activities of the extract. The n-butanol fraction of the extract was observed to be more effective as the reduction in blood pressure with 30mg/kg was 48.7±10.5%. The effects of both the aqueous extract and the n-butanol fraction were accompanied with corresponding reductions in heart beat rate. The results of this work have established the potential of the root bark of *M. cecropioides* in reducing blood pressure.

**Keywords**: *Musanga cecropioides*, aqueous extract, root bark, butanol, hypotension.

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