STUDY ON THE ANTIHYPERTENSIVE ACTIVITY AND CHEMICAL CONSTITUENTS OF *MILLINGTONIA HORTENSIS* LINN.F.(EGAYIT) AND *GISEKIA PHARNACEOIDES* LINN. (GANGALA)

Ph. DISSERTATION

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ABSTRACT

Two medicinal plants, namely *M. hortensis* (Egayit) and *G. pharnaceoides* (Gangala), which are used in traditional medicine for the treatment of hypertension, have been selected for chemical and pharmacological investigations. In the pharmacological investigation, aqueous and 70% ethanolic extracts of *G. pharnaceoides* were subjected for the first time to *in vivo* antihypertensive test with anaesthetized dogs model, where they exhibited significant antihypertensive activities on the anaesthetized dogs. Solvent fractionation of the 70% ethanolic extract of *G. pharnaceoides* and chromatography on silica gel column with EtOAc- CH_3COOH-HCOOH-H_2O (100:11:11:26) solvent system has yielded 2 aliphatic nitro compounds (0.2 and 0.27%). Similarly, the 70% ethanolic extract of *M. hortensis* yielded, by chromatography on silica gel column with PE-EtOAc (9:1) solvent system, and sometimes by PTLC on silica gel layer with PE-EtOAc mixture, β-sitosterol- stigmasterol (3:1) (0.162%), acacetin (0.36%), 7-methoxy-4′,6,8-trihydroxyisoflavone (0.08%) and 7′-carboxy-6, 8-dihydroxy-4′-methoxyisoflavone (0.04%). This may be the first time that these flavonoids are reported in *M. hortensis*. The structure of the isolated compounds were elucidated by UV, FT-IR, ^{1}HNMR and mass spectroscopic methods.