EFFICIENT EXTARCTION METHOD FOR *ANTHOCEPHALUS CADAMBA*

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Backgruond: *Anthocephalus cadamba* is an important plant having tremendous medicinal properties. Most surprisingly, despite the Cadamba being a miraculous plant, very few studies have been done on method of extraction of phytochemicals. There is a need to search for environment friendly and faster methods of extraction. In the present research work efficiency of the extraction methods was evaluated preliminarily.

Methodology*:* Leaf and stem bark powders were extracted by traditional methods such as maceration, soxhlation and new method sonication using different solvents such as methanol, ethanol, water. Extraction efficiency of these methods was evaluated by comparing the number of spots appearing in thin layer chromatography. Different solvent systems were investigated for resolution of maximum number of components. Methanol: Chloroform: (7:3), Hexane: Ethyl Acetate: Acetic Acid (4:3:1), Hexane: Ethyl Acetate (4:3 /3:6/ 2:7), Chloroform : Methanol (8:2), Toluene: Ethyl Acetate (6:4), Toluene: Ethyl Acetate: Methanol (6:4:1) were tried.

Results and Discussion: Among the mobile phases used Toluene: ethyl acetate: methanol (6:4:1) gave 4 spots in leaf extracts but no spot in stem bark extract. Leaf extracts obtained by maceration for 24 hrs, soxhlation for 3 hrs and sonication for 30 min resulted in 4 spots in qualitative TLC study.

Conclusion*:* From these qualitative results it can be suggested that somewhat new method of ultrasound-assisted extraction can be used for the extraction of secondary metabolites from plants effectively, instead of the time and solvent consuming methods. However further large comparative trials on the different extractions processes should explore the possible differences quantitatively.