

## PHYTO-CHEMICAL AND PHARMACOLOGICAL EVALUATION OF ETHNO-MEDICINAL PLANT DRUGS (EMP) AND TRIBAL MEDICINE FORMULATION (TMF) USED BY TRIBAL PRACTITIONERS FOR WOUND THERAPEUTICS IN THE REGION OF BILIGIRIRANGANA HILLS, KARNATAKA

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### ABSTRACT

In the present investigation, an attempt has been made to appraise ethno-pharmacology of medicinal plants of B.R. Hill tracts of Chamarajanagara district of Karnataka. The ethno-medicinal plant materials were taxonomically identified and authenticated with standard flora. The selected ethno-medicinal plant drugs, *Andrographis serphyllifolia*, *Discorea hispida*, *Glycosmis mauritiana*, *Nothapodytes nimmoniana* and *Rauvolfia densiflora* were subjected for physico-chemical and preliminary phyto-chemical analysis. The physico-chemical analysis and other characteristics features of ethno-medicinal plants indicated the active status of pharmacognostic and efficiency of the plant material. In the study, active phyto-constituents of the five selected ethno-medicinal plant drugs (EMP) of different families and the tribal medicinal formulations (TMF) were recognized and their presence was correlated with the bioactivities of the plants. The phyto-chemicals have two categories *i.e.*, primary and secondary constituents. Primary constituents have chlorophyll, proteins sugar and amino acids. Secondary constituents contain terpenoids, alkaloids, flavonoids, saponins, tannins, glycosides, fixed oils, fats, phyto-sterols and phenolic compounds. The phyto-chemical parameters were analyzed evidently for their active presence in the aqueous extracts followed by organic solvents like ethanol, petroleum ether and methanol extracts. The presence of active secondary metabolites in the extracts of ethno-medicinal plants may have profound activity and justifies the status for preparation of crude potential drug by the tribal people. The phyto-chemical screening of the ethno-medicinal plants showed the presence of alkaloids, flavonoids, terpenoids, saponins, tannins, phenolic compounds and reducing sugars. *A. serphyllifolia* and *D. hispida* did not contain cardiac glycosides and coumarins while, *G. mauritiana*, *N. nimmoniana* and *R. densiflora* showed the presence of glycosides, tannins and alkaloids. The findings provided evidence that, crude aqueous and organic solvent extracts of ethno-medicinal plant drugs and TMF contain medicinally important bioactive compounds and it justifies their use in the Tribal Medicinal System (TMS) for the treatment of different relentless ailments apart from wound therapeutics.

**KEYWORDS:** Phyto-Chemicals and Pharmacology, Ethno-Medicinal Plant Drugs (EMP), Tribal Medicine Formulation (TMF), Tribal/Traditional Practitioners, B.R. Hills, Karnataka