

Studies on Traditional Abortifacient of the Karbi tribe of Assam, India

Reena Terangpi¹ and Farishta Yasmin²

¹Department of Botany, Barnagar College, Assam

²Department of Botany, Nowgong College (Autonomous), Assam

Corresponding E-mail : reenaterangpi@barnagarcollege.ac.in

farishtayasmin4rs@gmail.com

The Karbis, an indigenous tribe of Assam, India, utilized different ethnomedicinal plants as abortifacient. *Lablab purpureus* (L.) Sweet, *Achyranthes aspera* L., *Dendrocalamus hemiltonii* Nees & Arn. ex Munro and *Musa balbisiana* Colla are locally available plants that are well utilised for potential purposes among indigenous tribes. The present study describes the physicochemical and phytochemical characterization of three (03) medicinal plants used as abortifacient. Fresh plant parts are processed for physicochemical and phytochemical screening following standard methods along with GC-MS analysis. Organoleptics studies, moisture content, loss of moisture, flow properties, extractive values and ashes content revealed that plants are potential source of phytomedicines as per WHO standard. The value of Carr's index and Hausner ratio indicates the powder drugs signify good powder compressibility except *L. purpureus* (22% and 1.27). Active phytochemicals are present in the plant parts and some compounds like Arsenous acid tris (trimethylsilyl) Ester from *L. purpureus*, Methyl glyoxal from *A. aspera*, Phenol from *D. hemiltonii* and Phthalic Acid, Methyl Nony Ester from *M. balbisiana* having potential reproductive and developmental toxicity identified from GC MS are presented and selected for in-silico studies. These compounds can be predicted as a candidate drug as per SwissADME drugs profiling (GI absorption, BBB access, Bioavailability, P-gb substrate and drugs likeness properties). Thus, these plants used by the folk rightly claimed as Ethnomedicinal Abortifacient. Experimentation involving laboratory animal may be further studied to understand its efficacy and for further drugs discovery process.

Keywords: Abortifacient, Medicinal plants; Bioactive compound; Indigenous, Karbi Tribe.