

Comparative Pharmacognostical Studies On Aerial Parts Of Two Varieties Of *Cardiospermum Helicacabum* L.

ABSTRACT : *Cardiospermum helicacabum* (Sapindaceae) has two varieties viz. var. *microcarpum* and var. *luridum*. Variety *microcarpum* is used in indigenous systems of medicine. The market samples of this plant were purchased from various suppliers and found that they were mixed with both varieties. There is no comparative pharmacognostical study on these two varieties to identify/authenticate the variety in the market sample. In this present study, comparative pharmacognostical characteristics of aerial parts between two varieties are reported. Macroscopically, var. *luridum* can be identified by the presence of larger sized leaves, flowers and fruits and tomentose leaves (on the lower surface). Anatomically, var. *luridum* varies from var. *microcarpum* by the presence of abundant glandular and non-glandular trichomes on the epidermis of stem, two lateral vascular bundles outside the pericyclic ring and abundant *tanniferous* cells in petiole, cortical vascular bundle in leaf midrib and absence of stomata in upper leaf surface. Physicochemical constituents, fluorescent analysis and preliminary phytochemical tests also reveal differences. In general, many market samples analyzed were found to be admixed with both varieties.

Key words: *Cardiospermum helicacabum* var. *microcarpum*, var. *luridum*, Sapindaceae, pharmacognosy