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Standardization of *Astercantha longifolia* Linn roots and Aerial parts

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The formation of kidney stones is a very painful disease that follows a complex process which results from serious physiochemical events in the kidney. The treatments include surgical removal, extracorporeal shock wave lithotripsy and drug treatment in western medicine. In Sri Lanka, roots or aerial parts of *Astercantha longifolia* Linn are used to treat urolithiasis. It is an annual herb belonging to the family Acanthaceae. An attempt was made to (a) compile formulations (including *A. longifolia* as one of the ingredients) which is used to treat urolithiasis and (b) standardize roots and aerial parts of *A. longifolia.* Compilation of formulations was carried out using different text books and collection of data from traditional Ayurvedic physicians. Standardization of roots and aerial parts of *A. longifolia* were carried out according to the WHO protocol. The percentages of moisture content, total ash, water soluble ash, acid insoluble ash, hot water extractable matter, hot ethanolic extractable matter, cold water extractable matter and cold ethanolic extractable matter were as follows; for roots (by % w/w): 10.48+ 0.01, 48.26 + 0.05, 7.86 + 0.02, 44.97 + 0.15, 35.36+ 0.30, 21.22+ 0.00, 31.64+ 0.61, 8.18 + 0.30, and for aerial parts (by % w/w): 12.45+0.01, 18.073+0.35, 0.184 + 0.09, 9.31 + 0.05, 32.35 + 0.31, 27.78+ 0.30, 19.78 + 0.30, 3.42+ 0.00 respectively. Phytochemical screening revealed the presence of tannins, flavonoids, saponins, alkaloids in both roots and aerial parts of *A. longifolia.* In conclusion, able to established physico-chemical and phytochemical parameters for roots and aerial parts of *A. longifolia* and also gathered many different formula including *A. longifolia* as one of the ingredients that used to treat urolithiasis.

Keywords: Standardization, kidney stone, urolithiasis