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PAEDERIA FOETIDA L. GROWS IN THE WESTERN PROVINCE OF SRI LANKA: A PRELIMINARY STUDY OF PHYSICO-CHEMICAL, PHYTOCHEMICAL AND HPTLC PROFILES

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Paederia foetida (Prasarini) under the family *Rubiaceae* is a herb used in *Ayurveda* preparations with hepatoprotective, anthelmintic, antibacterial, hypoglycaemic, anti-inflammatory, antioxidant, antitussive, anti-ulcer, antinociceptive, diuretic, laxative and thermogenic properties. Hence, standardization parameters are required in the quality control of herbal raw materials used in *Ayurveda* manufacturing. Study was aimed at developing standardization parameters for different extracts of whole aerial parts of *P. foetida* grown in Western Province, Sri Lanka. Matured whole aerial parts were collected from Western Province, air dried, oven dried at 45 °C and powdered. Extracts were obtained from cold maceration with methanol, acetone and hot water extraction under WHO Guidelines. Each was subjected to preliminary phytochemical screening, physico-chemical tests and High Performance Thin Layer Chromatography (HPTLC). Phytochemical screening showed tannins in all extracts while carbohydrates, reducing sugars, saponins and diterpenes were found in methanol and aqueous extracts. Phenols were detected only in aqueous extract while flavonoids were found only in acetone extract. Physico-chemical parameters; total ash, acid insoluble ash, water soluble ash, loss on drying, extractability in methanol, acetone and water were 15.9±1.3% w/w, 7.7±0.8% w/w, 9.3±0.2% w/w, 14.3±0.1% w/w, 22.6±2.9% w/w, 3.6±0.1% w/w and 23.4±1.0% w/w respectively. HPTLC fingerprint of methanol extract showed 9 peaks (R_f : 0.06, 0.10, 0.12, 0.15, 0.24, 0.32, 0.57, 0.62, 0.73) with the solvent system; ethyl acetate: n-hexane: dichloromethane in 1:4:1 proportion while acetone extract also showed 9 peaks (R_f : 0.06, 0.10, 0.14, 0.16, 0.29, 0.59, 0.62, 0.66, 0.78) for the same solvent system. Reverse phase HPTLC was run for aqueous extract which showed 16 peaks (R_f : 0.07, 0.12, 0.21, 0.22, 0.27, 0.29, 0.33, 0.35, 0.44, 0.50, 0.56, 0.61, 0.63, 0.66, 0.76, 0.84) with methanol: distilled water (4:6). Hence the above criteria can be used as quality control parameters of *P. foetida* whole aerial parts as a raw material in *Ayurveda* preparations.

Keywords: HPTLC, *Paederia foetida* L., phytochemical screening, quality control, standardization