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RESEARCH ARTICLE

Pharmacognostical, Preliminary Phytochemical Evaluation and Flavonoids Content of *Paederia foetida* Linn.

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ABSTRACT:

Paederia foetida, locally (Indonesia) known as “sembukan” and “skunkvine” (English), is one of Rubiaceae family member that has a diverse pharmacological and phytochemical importance. The name derives from the distinct odor when the leaves are crushed. The species name “foetida” is a Latin word for “stinky” or “foul smelling”. The current work was investigated to perform the morphoanatomical, physicochemical, phytochemical analysis and flavonoids content of *Paederia foetida* Linn. Pharmacognostical studies were carried out for different parameters include macroscopic, microscopic, and fluorescence. Physicochemical parameters, like the loss on drying, ash value, extractive values, etc. were measured as per WHO guidelines. Preliminary phytochemical screening was also performed for major groups of compounds and the flavonoid content. The TLC profile of the leaves extracts (n-hexane, DCM and ethanolic) of *P. foetida* showed 9, 7 and 3 spots respectively in the different solvents. The total flavonoid concentration was 1.32 mg/g, expressed as quercetin equivalents. The various macroscopic, microscopic, physical and phytochemical parameters listed here for *P. foetida*, and the present work can be used with respect to its identification, authentication, and standardization.

KEYWORDS: Chromatographic Profile, Microscopic, *Paederia foetida*, Physicochemical, Rubiaceae.

INTRODUCTION:

Paederia foetida is an important medicinal plant for “jamu” (Indonesian traditional system). The name is from the Greek word ‘paederos’ meaning opals, and ‘foetida’ means stinking. This plant is commonly known by The Indonesian as “sembukan”, meaning it spreads bad smell. In Malaysia, the local name for *P. foetida* is “akar sekuntut” and in India is called “Gandhavadulia”¹. This plant belongs to Rubiaceae family and one of among 30 species in *Paederia* genus. The origin of this plant is considered to be Eastern and Southern Asian.

This aromatic climbing plant is a leafy vegetable that can be eaten raw or steamed. It has also been reported for antinociceptive, antiviral², antidiarrheal³, the antiinflammatory⁴, antitussive⁵, hepatoprotective⁶, and antioxidant activity^{7,8}. The leaf extract of *P. foetida* also showed remarkable antihyperglycemic⁸ activity due to its possible systematic effect involving in the pancreatic and extrapancreatic mechanism. Iridoid glycosides, paederolone, paederone, paederine, and paederenine are the phytochemicals identified in this plant⁹. Previous studies (Raj RS)¹⁰ also identified a number of steroids and terpenoids and other 77 constituents in the volatile oils of the leaves, stems, and flowers of *P. foetida*, some at high levels. They constitute an effective source of traditional and modern medicines and play an important role in health care programs^{11,12}. Therefore, it becomes extremely important to make an effort toward

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