

Structural and Biochemical evaluation comparing two morphologically different specimens of *Elephantopus tomentosus*

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Abstract

In the developing world with the urbanization, people adapt to a very complex and busy lifestyle. Population comes to its threshold. As a developing country, Sri Lanka also struggle with this major socio economic problem in the present society. Rapid destruction of the natural habitats due to sweeping out of forests has narrowed up the number of snake bite cases reported annually. Other than keeping the trust on the anti-venom treatment provided by the hospitals, most of people visit traditional physician known as *Visha vaidya* or *Sarpa veda mahaththaya* for treatment. Among the traditional toxicology practice, Elephant's Foot (*Ath adi*) plays a major role especially in cobra and viper bites. However, it is seen that 2 morphologically different plants by the name *Ath adi* are in use among the traditional practitioners expecting the same effect. The purpose of this research is to compare and evaluate these 2 plants in a structural and biochemical point of view. Primary data was collected through observation and visiting the traditional practitioners of *visha chikitsā*. 2 morphologically different samples of the plant were taken from both dry and wet zones of Sri Lanka for analysis and identification. Identification and verification of the plant was done at the national herbarium with the help of prepared herbarium sheets. Biochemical analysis was done using Thin Layer Chromatography (TLC) method. According to the results, it was concluded that both plants despite of their morphological differences, have equal microscopic structure and biochemical properties.

Key words: *Elephantopus tomentosus*, *Ath adi*, Snake bite, Anti-venom

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