

Stambhana Guna (Checking Property) of *Scoparia Dulcis* Linn

E.R.H.S.S. EDIRIWEERA * GALHENA G. ** LIYANAGE S.S.P. ** JAYAKODY J.R.A.C. ** HETTIARCHCHI H.D.I. **
W.D.RATNASOORIYA **

Institute of Indigenous Medicine, University of Colombo, Rajagiriya, Sri Lanka

ABSTRACT : *Scoparia dulcis* Linn (Family: Scrophulariaceae, Sinhala: Wal koththamalli, Sanskrit: Unknown) is a perennial herb, growing in many tropical countries including Sri Lanka. In Sri Lankan traditional medicine, it is used in the treatment of diabetes mellitus and in unspecified urinary diseases. Therefore, we thought it may possess Stambhana guna. If it has Stambhana properties, then it should impair mobility and flow of body fluids and thereby, induce Stambhana Kriya in Mutravaha Srotas (Antidiuretic action), Stambhana Kriya in Raktavaha Srotas (Haemostatic action) and Stambhana Kriya in Annavaaha Srotas (Antidiarrhoeal action). The aim of this study was, therefore, to evaluate whether the decoction of *S. dulcis* (using several concentrations) possess antidiuretic action (using hydrated assay technique), haemostatic action (using Lee and White method) and antidiarrhoeal action (using castor oil induced diarrhoea) in rats, following oral administration. The results showed that decoction of *S. dulcis* possess marked antidiuretic (Stambhana Kriya in Mutravaha Srotas), blood clotting (Stambhana Kriya in Raktavaha Srotas) and antidiarrhoeal actions (Stambhana Kriya in Annavaaha Srotas). Further, no toxic effects (in terms of overt signs of clinical toxicity, stress, behavioural abnormalities, hepatic or renal toxicity) were evident with subchronic administration of the decoction. It is concluded that *Scoparia dulcis* has Stambhana property as expected, and may be used in the treatment of Prameha (polyuria), Rakta Pitta (bleeding from different parts of the body) and Atisara (diarrhoea).

Keywords : *Scoparia dulcis*, stambhana, antidiuretic, haemostatic, antidiarrhoeal.

INTRODUCTION

Charaka Samhita¹ describes 'Stambhana' (checking) as "Stambhana stambhayathi yadgathimantham chalam driwam", meaning 'that is which checks movements of mobile substances in the system upon which it acts'. The drugs with Stambhana properties could be used in the treatment of diseases, which would cause excessive discharge of body fluids.

In treatment of Atisara² (diarrhoea), when the patient is at the Pakwa stage, the Stambhana Prathikara (checking therapy) can be given but in case of a child, an old person, patients suffering from weakness or wasting should be treated with drugs containing Stambhana guna even during the Ama stage². With patients suffering from Rakta Pitta (bleeding from the different parts of the body) Stambhana medications should not be used until the vitiated Rakta is flown out³. Yet if the patient's Agni and strength is weak, then Stambhana Prathikara (checking therapy) should be initiated, even while the vitiated Rakta is remaining in the body³. Further, for patients suffering from Prameha (Polyuria) Stambhana drugs can be given.

Some Ayurvedic herbs are claimed to possess Stambhana Guna (checking property). For example

Syzygium cumini Skeels : used in treatment of Prameha (Polyuria), resin of *Salmalia malabarica* : used in treatment of Atisara (Diarrhoea)¹ and in Rakta Pitta (bleeding from different parts of the body)¹. Sri Lankan traditional physicians use *Scoparia dulcis* in the treatment of diabetes mellitus and in unspecified urinary diseases. In this regard, recently we have shown experimentally, using rats, that *S. dulcis* possess potent antidiuretic effects confirming Stambhana Guna in Mutravaha Srotas⁷. If Stambhana properties are present in *S. dulcis* then it may do have antidiarrhoeal and blood clotting enhancing property. The aim of this study was to investigate these possibilities in an attempt to further confirm Stambhana Guna (checking property) of *S. dulcis*.

Scoparia dulcis (Family: Scrophulariaceae, Sinhala: Wal kottamalli) is an erect perennial herb commonly found in tropical countries. In Sri Lanka it grows commonly in paddy fields and along roadside in dry and wet low land areas of the country. It's stem up to 60cm high, divaricantly branched⁴. Leaves are 1.4-3.5x0.8-1.5cm in size, serrated, tapering to base and sub acute at apex. The flowers are small and white and occur throughout the year. The seeds are oblong cuneiform and 0.5mm long. They are initially green in colour and mature into dull brown shade. Alkaloid, flavanoids, phenols, coumarins, steroids, saponins, tannins, amino acid and peptides are found in *Scoparia dulcis*⁷.

* Department of Nidana Chikitsa

** Department of Zoology

E-mail : delship@eureka.lk