Gastroprotective effects of an aqueous extract of *Cucurbita moschata* seeds on ethanol induced gastric lesions in rats

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SUMMARY. *This study investigated the potential gastroprotective activity of an aqueous extract of* C. moschata *seeds on rat using the technique of ethanol induced gastric lesions. The doses tested were 125, 250, 375 and 500 mg/kg. The extract exhibited significant gastroprotective activity in a dose related manner. This activity was highly potent, EC_{50} being 93.75 mg/kg.*

Key words: *Cucurbita moschata*; gastroprotective activity

In Sri Lanka fruits of *Cucurbita moschata* Durch. ex Poir. [1] (referred to as "wattaka" in Sinhala and as "pushini" in Tamil) [2] are commonly used as a vegetable. The seeds are also edible.

It is claimed that in the Ayurvedic system of medicine the fruits and seeds of *C. moschata* are used in the treatment of a variety of diseases such as hemorrhages from the pulmonary organs, and for urinary diseases. [2]

Recently it has been shown that a crude aqueous extract of the fruit of the related cucurbit *Momordica charantia* L. possesses gastroprotective activity. [3] It is possible that such activity may also be present in the seeds of *C. moschata*. This study was undertaken to investigate this possibility and here we report the gastroprotective activity of a water extract of *C. moschata* against ethanol induced gastric lesions in rats.

EXPERIMENTAL

Animals. Female cross bred albino rats (175-225 g) from our own colony were used. They were housed in raised mesh bottom cages (to prevent coprophagia) under standardized animal house conditions with free access to pelleted foods (Oils & Fats Co. Ltd. Seeduwa, Sri Lanka) and tap water.

Preparation of the extract. Fresh seeds of *C. moschata* were collected from the city market and dried under the shade for three days. 50 g of seeds were macerated with adequate distilled water and subsequently boiled for one hour. On cooling the mixture was filtered through muslin and then centrifuged to settle the heavy particles. The extract was made up to 85 ml. To establish the solid content of the extract 10 ml of the preparation was evaporated to dryness and heated to constant weight. It yielded 1001 mg of solid content. 1 ml of extract was considered as equivalent to 100 mg of solid content. All concentrations in this study are expressed in terms of mg of solid content per kg body wt.

The prepared extract was stored in a stoppered glass bottle at 4°C. The aqueous shaken extract was deep yellow in colour. When allowed to settle, it was light green with an oil layer on the surface. The extract was always shaken before use to ensure uniform dispersal and more than a week old extracts were always discarded.