STANDARDIZATION OF *KANTHA CHENDOORAM*

K. ELANGO[1], B. SURESH [1], B. R. RAMESH[1] R. VADIVELAN [1] AND SAMPATHKUMAR [2],

1. Department of Pharmacology, J.S.S. College of Pharmacy, Ooty – 643 001.
2. Govt. Siddha Medical College, Palayamkottai, Tirunelveli-627002
Email: kannanelango@hotmail.com

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ABSTRACT :

Siddha is a traditional medical system of India. According to siddha system of medicine, chendooram is a red colour powder generally made of metallic compounds. Mercury is used in the form of rasa chendooram (red oxide of mercury). This paper deals with the standardization of *Kantha chendooram*. It is a Siddha preparation of 8 ingredients, viz. 1. Purified Lode Stone, 2. Purified Sulphur, 3. Lead wort root powder, 4. Eclipta juice, 5. Lime juice, 6. Milk, 7. Egg albumin, 8. Madar Latex. In this study an attempt was made to standardize *Kantha chendooram* which has not been attempted by researchers earlier. Standardization of *Kantha chendooram* was in terms of its organoleptic characters, qualitative identification of phytochemical constituents, metallic quantification and in terms of pharmacognostical standardization.

INTRODUCTION:

Kantha chendooram is a popular siddha preparation of eight ingredients indicated[1] for microcytic anaemia, anaemia, chlorosis, obesity, edema, scrotal swellings, rheumatic diseases, enlargement of liver and spleen and abdominal tumors. It consists of Purified Lode Stone (suththi seitha kantham), Purified Sulphur (suththi seitha kanthakam), Lead Wort root powder (Koduveliver podi), Eclipta juice (Karisalaisaru), Lime juice (Elumicham pazha saru), Milk (Paal), Egg albumin (muttaiyin venkaru), Madar Latex (Erukkan paal). In the present study an attempt has been made to standardize the *Kantha chendooram*.

MATERIAL:

Kantha chendooram was procured from Indian Medical Practitioners Co-operative Pharmacy and Stores Ltd., Tirunelveli. (IMCOPS) It has been mentioned in Agasthiyar Paripooranam – 400 and Siddha Vaidhya Thirattu.

METHODS:

Organoleptic Characters:

Kantha Chendooram was evaluated for the organoleptic characters like colour, odour, appearance, taste and solubility. Solubility was tested in water, organic

solvents, and concentrated acids including aqua regia.

Pharmacognostical Standardisation[2]:

Kantha chendooram was standardized in terms of its loss on drying, acid insoluble ash, water soluble ash, and water soluble extractive value and alcohol soluble extractive value.

Phytochemical Evaluation[3]:

Kantha Chendooram was subjected to qualitative analytical tests for the detection of various chemical constituents viz. carbonates, sulphates, chlorides, potassium, calcium, magnesium, alkaloid, carbohydrates, glycosides, saponins, albumin and phytosterols.

Atomic Absorption Spectroscopy:

Kantha Chendooram was subjected to analysis of various metals viz. zinc, copper, lead, mercury and iron by wet and atomic absorption spectroscopy methods (AAS) at National Metallurgical Laboratory, CSIR Madras Complex, Taramani, Chennai.

RESULTS:

The results of the standardization of *Kantha Chendooram* are shown in Table 1.

LIMITATION :

Since *Kantha chendooram* is insoluble in water and organic solvents, but sparingly soluble in aqua regia it is difficult to carry out in-vitro studies with the preparation. Although the metallic contents (especially lead and mercury) are within limits, toxicological studies need to be carried out at acute, sub acute and chronic levels.

PROSPECTS :

Currently, we are evaluating *Kantha Chendooram* for its gastric antiulcer activity. In future, this work can be extended further for the toxicological studies at acute, sub acute and chronic levels and the pharmacological studies can be experimented by different ulcer models, so far not attempted.

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TABLE – 1. STANDARDIZATION OF *KANTHA CHENDOORAM*

Parameters	Value
Organoleptic Characters:	
Color	Red
Odour	Odourless
Taste	Tasteless
Appearance	Fine powder
Solubility	Insoluble in water, organic solvents and acids but sparingly soluble in aqua regia.
Analytical Data:	
Loss on drying at 110^0C	3.0378%
Acid insoluble ash	8.0677%
Water soluble ash	4.093%
Water soluble extractive value	0.3%
Alcohol soluble extractive value	0.4%
Qualitative Analysis:	
a. Carbonates	-ve
b. Sulphates	-ve
c. Chlorides	+ve
d. Potassium	-ve
e. Calcium	+ve
f. Magnesium	-ve
g. Alkaloid	+ve
h. Carbohydrates	+ve
i. Glycosides	+ve
j. Saponins	-ve
k. Albumin	+ve
l. Phytosterols	-ve
Quantitative Analysis: **(Wet and AAS)**	
a. Zinc	80 mg/kg
b. Copper	610 mg/kg
c. Iron	23.57 %
d. Lead	< 1.0 mg/kg
e. Mercury	< 6.0 mg/kg

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