

Formulation and standardization of homoeopathic mother tincture of *Cinnamomum zeylanicum*

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Abstract

Alcoholic preparation of drugs in Homoeopathy, are called as tincture. The mother tincture of *Cinnamomum zeylanicum* was prepared by 100 g of coarse powder (40 mess) of *Cinnamomum zeylanicum* was macerated with 95 v/v % of alcohol to make 1000 ml of mother tincture for eight days (drug strength 1/10). It was shaken occasionally, and filtered. The mother tincture was standardized by using various physical, chemical and chromatographic parameters.

Keywords: *Cinnamomum zeylanicum*, mother tincture

Introduction

“Nature cures everything” – Hippocrates Homoeopathy system of medicine is founded by Dr Christian Frederick Samuel Hahnemann (1790). Which follows a basic natural principle - “Similia similibus Curantur” (Latine) i.e. “like cures like” [1, 2]. It has its own dosage forms for various ailments. Mother tincture of *Cinnamomum zeylanicum* (Linn) Cor. (Family- *Lauraceae*) was selected for the present studies, which is a proven remedy for diabetes.

In the present investigation attempts were made to prepare and standardize the homoeopathic mother tincture of *Cinnamomum zeylanicum* and the results were compared with the standard marketed preparation.

Material and Methods

Plant Material

The bark of *Cinnamomum zeylanicum* (Linn) Cor. (Family: - *Lauraceae*) were collected from local market Bhopal and were authenticated by prof.

A.K. Pathak, Head of Dept. of Pharmacy Barkatullah University, Bhopal. Homoeopathy Mother Tincture was prepared as per method prescribed in Homoeopathic Pharmacopoeia.

Preparation of Tincture

Freshly collected Bark of *Cinnamomum zeylanicum* were crushed coarsely powdered passed through 40mm mess and 100 gm powder was macerate for 8 days with 95% ethanol to produce final volume of 1000ml for drug strength 1/10. It was then filtered & the filtrate was collected and stored in well closed plastic containers [3-8]

Result and Discussion

The aims of present study were to set the parameters for standardization of homeopathic mother tincture which is not performed by homoeopathic system. We had concluded some standard parameter with respect to Indian

pharmacopoeia. These parameters were compared with prepared and marketed mother tincture, result is shown below:

Study of Co-Chemical Properties

The different Co-chemical properties like weight per ml, specific gravity, P^H, total solid, conductivity, refractive index of Mother Tincture was measured as per method of Indian Pharmacopoeia,(1996) & Homoeopathic Pharmacopoeia, (1971).

Table 1. *Cinnamomum zeylanicum* Mother Tincture

Specification	Prepared	Marketed
Colour	Yellowish brown	Yellowish Brown
Odour	Fragrant	Fragrant
Taste	Astringent & sweet	Astringent & Sweet

Determination of Alcohol content, light absorption[9-10] and TLC was also carried out and all these parameters were compared with Marketed prepared *Cinnamomum zeylanicum* mother tincture of New Life Homoeopathic Ltd. Mandideep, Raisen (M.P.)

Table 2. Physical Parameter & Co-Chemical Properties of *Cinnamomum zeylanicum* Mother Tincture

Parameter	Prepared	Marketed
Weight per ml	0.8179	0.8190
Specific gravity	0.8208	0.8220
P ^H Value	5.71	5.59
Conductivity	0.99 milli mho	0.89 milli mho
Total Solid	0.0065 g/ml	0.0053 g/ml
Refractive Index	1.425	1.425
Alcohol Content	92.15 % vv	92 % vv

Thin layer Chromatography for crude drug Sample: Dichloromethane extract of *Cinnamomum zeylanicum* bark.

Solvent system: Toluene:Ethyl acetate (93:7 v/v).

Sample Preparation: Powder sample extracted with dichloromethane.

Detection: Vanillin sulfuric acid (1:99 w/v).

Table 3. Table Showing Light absorption of *Cinnamomum zeylanicum* Mother Tincture

Wavelength (nm)	Blank	Prepared	Marketed
400	00	0.46	0.30
420	00	0.47	0.34
480	00	0.48	0.27
500	00	1.64	1.60
520	00	-	-
540	00	-	-
620	00	0.53	0.61
680	00	0.83	0.25

After spraying the plates were heated at 105⁰ C for 5 mins. From spots were detected. The Rf values of the prepared and marketed tincture are as follows:

Table 4. Rf values of *Cinnamomum zeylanicum* Crude drug.

Spot No.	Rf Values	
	Prepared	Marketed
01	0.46	0.46

Thin-layer chromatography for *Cinnamomum zeylanicum* mother tincture

Sample: Mother Tincture of *Cinnamomum zeylanicum*.

Solvent system: Butenol: Acetic acid: Water (4:1:1 v/v).

Sample Preparation: Powder sample extracted with ethanol.

Detection: Sulphuric acid, methanol (1:9 v/v), heat at 105°C for 5 min

Table 5. Rf values of *Cinnamomum zeylanicum* Mother Tincture

Spot No.	Rf Values	
	Prepared	Marketed
01	0.85	0.85

Conclusion

The Physical Parameter & Co- chemical properties of prepared Mother Tincture were found in accordance with that of the marketed mother tincture. These parameter may be used for standardization of mother tincture.

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