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STANDARDISATION OF AYURVEDIC OILS

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ABSTRACT: *In the present study we report some physico-chemical standards for Karpooradi taila which is a medicated oil used for the treatment of "Varrthavikaram". The physico-chemical standards and the Thin Layer chromatographic pattern can be used as a finger print standard for karpooradi taila.*

INTRODUCTION

The physico-chemical standards available for the standardization of Ayurvedic tailas are insufficient. The analytical values available in the pharmacopoeial standards for ayurvedic formulations are not finger print standards for each taila. We have already fixed some finger print standards for *Pinda taila, Murivenna* and *Hemajeevanti taila* [1&2]. The single drugs used in *Karpooradi taila* are *Trachyspermum ammi* and *Cinnamomum camphorum*. *Trachyspermum ammi* fruits yield 4.6% of an essential oil containing 45-55% thymol[3]. Thymol is the active principle of *Trachyspermum ammi*[4]. The detection of these two drugs in *Karpooradi taila* by T.L.C. using different solvent systems is our present study.

MATERIALS AND METHODS

Botanically and pharmacog-nostically pure and authentic ingredients were used in the preparation of *Karpooradi taila*. *Karpooradi taila* was prepared using the following two medicinal plants. 1. *Trachyspermum ammi* (Ajowan), 2. *Cinnamomum camphorum* (Camphor). The method consists of four steps.

1. The preparation of a standard sample of *Karpooradi Taila* as per the pharmacopoeia of the Ayurveda College, Thiruvananthapuram. The samples are prepared under the supervision of Dr. S. Vijayalakshmi research officer (Ayurveda) of our unit. The details of the ingredients of *Karpooradi taila* are given in Table I.

2. Recording preliminary parameters like colour, smell, appearance, specific gravity, saponification value and iodine value, The results are given in able2.

3. Separating the unsaponifiable matter from the oil by refluxing 2gms of oil with 25ml of alcoholic KOH for 2 hours, the alcohol was distilled off, the residue dissolved in distilled water, extracted with ether and the ether solubles were taken from this residue.

4. *Karpooradi taila* is dissolved in pet ether and extracted with 1% NaOH.

The alkali portion was acidified with dilute HCI and extracted with ether and compared with thymol standard using thin layer chromatography. The solvent system used

was [Dichloromethane; ethyl acctate: diethyl amine] in the ration 90: 5:5 and spraying with anisaldehyde sprang reagent (0.5ml Ansaldehyde = 1 ml conc. Sulphuric acid, added to 50ml of acetic acid). The thymol standard was dissolved in alcohol. The camphor was dissolved in petroleum ether.

RESULT AND DISCUSSION

From the standardization point of view, the analytical values of *Karpooradi taila* with the values of coconut oil (which is used as a base in prepating these tailas) given in able 2, can be used as preliminary reference standards for market samples of these *tailas*.

Since these values are mostly related to the purity of the coconut oil, the T.L.C. studies of the tailas were considered more useful to find the presence of the various chemical compounds of the plans used in the tailas, either in their native from or as artifacts. As the T.L.C. study of the tailas as such did not give clear separation of compounds, the T.L.C studies of the unsaponifiables of the taila was tried. The Rf values of the spots are given in table 3.

The spot obtained for thymol isolated from karpooradi taila was identical with the standard thymol after spraying with anisaldehyde spraying reagent. The spot obtained in U.V, and in iodine vapour for camphor in the unsaponifiable of taila was identical with the camphor.

Thus the presence or absence of *Trachyspermum ammi* and *Cinnamomum camphorum* can be detected n Karpooradi taila using T.L.C the quantitative estimation of thymol and camphor which in turn corresponds to the amount of *T. ammi*, and *C. camphorum* can be done using colorimetric methods. That will be done and published in future.

Table 1
INGREDIENTS OF *KARPOORADI TAILA*

Sl.No	Ingredients	Sanskrit Name	Quantity
1.	Trachyspermum ammi	Ajamoda	600 gm
2.	Cinnamomum camphorum	Karpooram	120gm
3.	Cocount oil		1litre

Table II
ANALYTICAL VALUES OF *KARPOORADI TAILA*

Sl.No	Parameters	Karpooradi Taila	Coconut oil
1	Colour	Green	Colourless
2	Smell	Characteristic smell	Characteristic smell
3	Appearance	Viscous	Viscous
4	Touch	Oily	Oily
5	Clarity	Clear	Clear
6	Specific gravity	0.93	0.92
7	Acid value mg/gm	2.95	1.67
8	Saponfication value	274.3	291.6

pages 280 - 283

	mg/gm		
9	Iodine value gm/100gm	11.16	9.12

Table 3
Rf values of spots

Samples spotted	Rf value (observed in U.V)	Rf value (After spraying with anisaldehyde spraying Reagent)
Thymol separated from Karpooradi taila	-	0.75 (Pink Spot)
Thymol Standard	-	0.76 (Pink Spot)
Unsap. Of Karpooradi taila	0.86 (Blue fluorescent spot)	-
Karpooram standard	0.86 (Blue fluorescent spot)	-

Solvent system
Dichloromthae: Acetate: Diethylamine – 90:5:5

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