

# Comparative Preliminary Standardization of *Siddha* Medicated Oil: *Thalangai Ennai*, a Poly Herbal Formulation

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**Abstract-** A poly herbal *Siddha* formulation, *Thalangai ennai* (T.E) was prepared as per the *Siddha* Literature and used as relieving rheumatic pains, impaired movement of limbs, and all kind of joint disorders, etc. The physicochemical standards available for the standardization of *Siddha* medicated oils are insufficient. This article reports on comparative preliminary standardization of T.E of Drug Unit (DUT) and Marketed formulation (MFT) have been standardized on the basis of organoleptic characters, physicochemical properties and analysis of Thin Layer Chromatography. Specific gravity and pH value for DUT was found to be 0.9185 and 4.61; in case of MFT these were found to be 0.9173 and 4.97 at room temperature respectively. The TLC finger prints of both the formulations were revealed fifteen spots in the pure dichloromethane solvent. The results obtained with these both the formulations were found to be comparable and variations were not remarkable. Though the analytical values can be used as reference standards for the quality assurance of T.E, these values mostly related to the purity of the sesame oil (which is used as a base), the qualitative and quantitative estimation of each single ingredient of T.E requires further research work in future.

**Index Terms-** Thalangai ennai, Poly herbal formulation, Medicated Oil, Siddha Medicine, Standardization

## I. INTRODUCTION

With the 'retain to nature' call in both, the developed countries as well as developing countries, there is an increase in number of people switching over to the alternative system of medicine and thus it is essential that people get relevant medicines<sup>[1]</sup>. *Siddha* Medicine is a one of the traditional medicine<sup>[2]</sup> and practiced by Tamil people of Northern and Eastern province in Sri Lanka. An attempt is made to standardize *Siddha* medicated oil.

Effective management of *vātā* disorders such as rheumatic pain, inflammation, bone degenerative changes and impaired movement of limbs are the important tasks in the field of treatment. *Siddhars* described *vātā* disorders of different origin and external application is most useful for their management<sup>[3]</sup>. Among them *Ennai* (Medicated oil) is one of the medicaments prescribed by them<sup>[5, 6, 7]</sup>. T.E is one of the *Siddha* medicated oil mentioned in the *Siddha* Literature<sup>[8]</sup> and it is prepared at Government Indigenous Medicine Drug Unit in Jaffna and supplied to all Government District Ayurvedic Hospital, Rural

Ayurvedic Hospitals and Central Ayurvedic Dispensaries in Jaffna District. A marketed formulation of T.E (Everest product) is available in Jaffna District. The ingredients used in T.E are juice of the *thalangai* (*Pandanus tectorius*), sesame oil, milk, water, rock salt and seventeen different herbal powdered materials<sup>[9]</sup> with that it is one of the most effective oil for external applications to the rheumatic conditions.

The physicochemical standards available for the standardization of *Siddha* medicated oils are insufficient. The analytical values available in the pharmacopoeial standards for *siddha* formulations are not finger print standards for each of oil<sup>[10]</sup>. The aim of the present study was to fixed preliminary reference standards of the T.E. This article reports on comparative preliminary standardization of T.E (preparation of Drug Unit, Indigenous Medicine and the marketed formulation) have been standardized on the basis of physicochemical properties, organoleptic characters, and Thin Layer Chromatography (TLC) finger print analysis.

## I. Methodology

### *Marketed samples for external medicine*

T.E was purchased from a reputed vendor of herbal Medical products, *Everest Marunthakam, Usan, Mirusuvil* (Registered at Sri Lanka Ayurveda Medical Council). The marketed formulation of T.E (MFT) was standardized based on their organoleptic characters (physical characteristic), physicochemical properties (pH, specific gravity) and thin layer chromatography (TLC) according to standard procedures and compared with the T.E of Drug Unit of Indigenous Medicine, Jaffna (DUT).

### *Ingredients and preparation method of Thalangai ennai*

Botanically pure and authentic ingredients were used in the preparation of T.E. Table No. 1 shows the ingredients and its quantity for preparation of T.E in accordance with the guidelines stated in the *Siddha* Literature<sup>[8, 9]</sup>. From 1 to 17 dried raw materials are ground to get coarse powder and mixed with 10 times by volume of water (16 L). Then continued boiling to reduce the volume to one eighth (2 L) and the decoction is strained using a muslin cloth to obtain the aqueous decoction. Juice of the *thalangai*, sesame oil, milk (2:1:1) are taken in a vessel and heated for some time; mixed the aqueous decoction together. This mixture is boiled on mild fire with stirring and boiling continued till all the water evaporates and this mixture turn as oily (waxy like). After cooled 10 minutes, the powdered rock salt mixed with the oil.