

‘PANCHAKALPA VITHI’ TOWARDS THE HEALTHIER LIFE SPECIAL REFERENCE TO SIDDHA TRADITION

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ABSTRACT

In every country traditional medicines find foundation in religious beliefs, experiences and the World Health Organization engaged to establish definite guidelines for methodology of clinical research and the appraisal of effectiveness of traditional medicine. *Siddha* treatment aims in providing ultimate cure to both mind and body systems. *Siddhas* developed a discipline called *kaya kalpa*, leads to longevity and fountain of youth with complete freedom from illnesses. Free radicals cause many diseases. They attack on membranes causing oxidation of lipids, loss of different enzyme activities and may cause cancer. Plants are important source of antioxidants. Antioxidants completely stop or delay the process of oxidation. *Pancha kalpa*, medicated head bath found in inscriptions (ARE 248/1923) of Vira Rajendra Chola dated on 5th regnal year (1067 Anno Domini) was found by epigraphist K V Subramanya Iyer and mentioned in Pathaarththa guna Sinthamani'. Ingredients are seed of *Piper nigrum*, rhizomes of *Curcuma aromatica*, and fruits of *Terminalia chebula*, Seed of *Emblica officinalis*, seeds of *Azadirachta indica* and milk of black cow (*Karaampasu*) used for both preventive and curative treatments. These counter degenerative changes, which leads to aging by means of the natural antioxidant activity .Here the study focused to explore the efficacy of the drug ensures longevity and freedom from illnesses in inscription and siddha literatures and scientific studies.

KEY WORDS

Pancha kalpa, Antioxidants, Inscriptions, Free radicals

INTRODUCTION

In every country traditional medicines find foundation in magical or religious beliefs, or popular experience and the World Health Organization is engaged to establish definitive guidelines for methodology of clinical research and the appraisal of effectiveness of traditional medicine^[1]. The household recipes containing greens are part of Tamil culture. *Siddha* treatment aims in providing ultimate cure to both mind and body systems^[2]. The *Siddhas* have developed a discipline called *kaya kalpa*. This discipline addresses the sections on longevity and fountain of youth with complete freedom from illness. It is similar to *rasayana* of Ayurveda and gerontology of modern medicine. *Kalpa* means ‘able, competent’ and is defined as the panacea intended for prolonging life for an indefinite period^{[7], [5]}. The special feature of the *Siddha medicine* is that most of the preparations are in compound formulation, and because of its synergistic action, toxicity is being diminished, thereby increasing bioavailability through the cells of the body. The pharmacodynamics of this system is entirely different from other systems of medicines^[5].

Plants are important source of antioxidants. *Antioxidants* are molecules which can safely interact with *free radicals* and terminate the chain reaction *before* vital molecules are damaged. Different free radicals attack on cell membranes produce many diseases. Antioxidants completely stop or delay the process of oxidation. A balance between *free radicals and antioxidants* is necessary for proper physiological function^[33]. *Kayakalpa* drugs counter the degenerative changes, which leads to aging by means of the natural antioxidant activity of the herbs^[10]. Scientific explanation behind the anti-aging properties, because antioxidants attack the free radicals which so drastically affect the organ systems^[38].

Siddha system’s literature is in Tamil and this system of medicine developed within the Dravidian culture, which is of the pre-Vedic period^[5]. The *Pancha kalpa* is the medicated head bath found in Thirumukkudal Appan Venkatesa Perumal Temple Inscriptions on Vedic College, Hospital and Village Sabha (Vira Rajendra Chola) Location: Thirumukkudal, Kanchipuram district, Tamil Nadu. An inscription (ARE 248/1923) of Vira Rajendra Chola dated in his 5th regnal year (1067 Anno Domini) was found by epigraphist K V Subramanya Iyer. The 55 line inscription in Chola Tamil script was viewed on the east wall of the first *prakaram*. The unique and distinctive inscription also documents about the organization and administration of Veera Cholesvara *Aadhular Salai* (charitable dispensary or medical center), to treat students and temple staff, comprising fifteen beds^{[35], [36], [37]}. And also mentioned in several *Siddha* text books, Specially ‘

Patharththa guna Sinthamani' *Pancha kalpa* used for both preventive and curative treatments. Preventive include kayakalpa medicines. Ingredients are seed of *Piper nigrum*, rhizomes of *Curcuma aromatica*, and fruits of *Terminalia chebula*, Seed of *Emblicoeffinalis*, seeds of *Azadirachta indica* and milk of black cow (*Karaampasu*). Ingredients of medicated head bath will be much helpful in counter degenerative changes, which lead to aging by means of the natural antioxidant activity.

The objective of the study to explore the efficacy of the drug ensures longevity and freedom from illness in inscription and *Siddha* literatures and scientific studies. Data of '*Pancha kalpa vithi*' was collected and Properties of each ingredient were collected. The data were analyzed according to modern science. According to concepts of *panchakalpa vithi* lead to longevity and fountain of youth with complete freedom from illness.

LITERATURE REVIEW

The *Pancha kalpa* is the medicated head bath found in Thirumukkudal Appan venkatesa Perumal temple inscription. The name of different medicines that were kept in the store of the hospital were mentioned in the Inscription *Panchakalpam* 1 thooni/ pathakku . Chola Units and measurements: Measure of Grain Volume (1 Pathakku - 21.504 lit. (2 kuruni / 16 nazhi / 32 uri / 64 uzhakku /128 aazhakku)) (1 Thooni - 43.008 lit (2 pathakku / 4 kuruni / 32 nazhi / 64 uri / 128 uzhakku / 256 aazhakku) ^{[35],[36],[37]}. And also mentioned in 'Patharththa guna Sinthamani'.

DRUG DETAILS

Medicated head bath: *Pancha kalpam*

“*Mirugamadham Piththamani vembu kadunelli*

Katukurudhum Paalaraiththu Kaaichchi –jorumida

Jinkkatpa noikku midaminraa meignanaru

Mainkkatpameetheyari”

Explanation

Grind all Seed of *Piper nigrum*, rhizomes of *Curcuma aromatica*, and fruits of *Terminalia chebula*, Seed of *Emblica officinalis* and seeds of *Azadirachta indica* and Paste with black cow (*Karaampasu*) milk and boil. Apply on head and have to take bath. That principle called *pancha kalpa vithi*, It will cure and prevent from diseases.

Ingredients

Seeds of *Azadirachta indica* (Veppamvithu) , Rhizomes of *Curcuma aromatica* , (KasthuriManjal) ,Fruit of *Terminalia chebula* (Kadukkai), Seed of *Emblica officinalis* (Nelli), Dried fruit of *Piper nigrum* (Milagu).

Method of preparations

A paste made out of the above ingredients in equal parts, with milk of a special variety of black cow(*Karaampasu*) boiled and used externally for taking head bath twice a week while taking kalpa drugs^[4].

Profile of Individual drugs

1. *Azadirachta indica*

Family: Meliaceae

Parts use: dees

Constituents: Azadirachtin, Limonoids, Terpenoids, Bitter

Taste: Bitter

Siddha Literature

‘Veembin vithaikku visanj channi paathamuthat

Trembivilunthodumenathther’

Explanation

Neem seeds were relieved pain and any poisonous condition fever and coma ^[40].

Scientific validations (Seeds of *Azadirachta indica*)

A general health promoter^[13].Anti-inflammatory, antipyretic and analgesic activities Have been reported in neem oil^[14].Neem oil has been shown to possess immunostimulant activity by selectively activating the cell-mediated immune mechanisms to elicit an enhanced response to subsequent mitogenic or antigenic challenge ^[15]. Recently, hypoglycaemic effect was observed with leaf extract and seed oil, in normal as well as alloxan-induced diabetic rabbits^[16].*In vivo* studies showed that intravaginal application of neem oil prior to coitus can prevent pregnancy^[17].Neem seed effective against malarial parasites ^{[18],[19]}.Components of

the alcoholic extracts of seeds are effective against both chloroquin-resistant and sensitive strains of malarial parasite^[20].seeds possesses a wide spectrum of antibacterial action against Gram-negative and Gram-positive microorganisms, including *M.tuberculosis* and streptomycin resistant strains^[21]. The antioxidant activity of neem seed extract has been demonstrated *in vivo* during horse grain germination, which is associated with low levels of lipooxygenase activity and lipid peroxides^[24].

2. *Curcuma aromatica*

Family: Zingiberaceae

Parts use :emozihR

Constituents: Alpha-curcumene (ar-curcumene), Beta curcumene, D camphor, Alpha and beta-turmerone.

Taste: Bitter and Sweet.

Siddha literature

'Punnunkkarappaanumpokaakkirumikalum

Ennuditthaakiniyunaasamaam- vanmalarththa

Soththeythanakaminneysukkilamumpuththiyumaank

Kasthurimanjalukku Kaan'

Explanation

Turmeric is used for wound, skin rashes, worm infestation, imbalance of digestion and as well as to increase the potency and memory power^[40].

fo emozihR) noitadilav cifitneicS*Curcuma aromatica*)

Many studies have reported anti –inflammatory, anti- melanogenic , anti-tumor, immunological effects, wound healing, anti -fungal, anti -oxidant, anti - microbial, anti-diabetic, antiplatelet and mosquito repellent activity of wild turmeric^{[25],[26],[27],[28]}.

In a laboratory study, extract can be applied as an effective personal protective measure against mosquito bites^{[25], [29]}.The results suggest that *Curcuma aromatica* may be potential sources ofFree radical scavenging and anti-oxidants^[30].Suggested that Inhibition of cellular oxidative stress and improving antioxidant defenses might be the mechanisms by which the extracts showed protective effects on Ultraviolet A -dependent melanogenesis^[31].

3. *Terminalia chebula*

Family: Combretaceae

Parts use : tiurf deirD

Constituents: Hydrolysable tannins contain phenolic carboxylic acid like gallic acid, Ellagic acid, Chebulic acid and Gallotannins such as 1,6 di-O-galloyl- β -D-glucose, 3,4,6 tri-O-galloyl- β -D-glucose, 2,3,4,6 tetra-O-galloyl- β -D-glucose, 1,2,3,4,6 penta-Ogalloyl- β -D-glucose.

Taste : Sweet, Astringent, Bitter, Sour & Pungent

Siddha literature

'Thaadaikaluththakithaalukurigividap

Peedaisilipathamuthatpaerthimudamaadaierddath

Thulamidipuuvaathasornikamaalaieran

Daalamidipormvarikkayaal'

Explanation

Terminilia chebulla is used for disease in mouth, neck, tongue and penis as well as used in varicose ulcer, obesity, chronic wound, jaundice, plant poisonous condition ^[40].

Scientific validation (Fruits of *Terminalia chebula*)

Significant response in wound types, improvement on Maturation, wound contraction and epithelialization ,Can promote cutaneous wound healing, probably resulting from a powerful anti-bacterial and angiogenic Activity, antifungal activities ,antiviral protective activity against cytotoxic effects caused by influenza A virus, All tested extracts exhibited antioxidant , high antiradical activity properties, confirms the immune modulator activity ,inhibited oxidative stress and the age dependent shortening of the telomeric DNA length, decreased cell viability, inhibited cell proliferation, induced cell death ^[34].

4. *Emblica offinalis*

Family: Euphorbiaceae

Parts use: Seed

Constituents: A fixed oil, Phosphatides and a small quantity of essential oil.

Taste: Sour, Astringent, Sweet, Bitter and Pungent.

Siddha Literature

'Nellikaaiku piththa neekumathanpulippaat

Sellumelaamathitserththunappaat-sollumaiyu

Moodumithaichsiththathilullavalanudane

Koorupiramekamumpoonkkooru'

Explanation

Emblica is described as gift of sea that is relieved mental disorders ,kapha disorders ,sinusitis ,excessive secretion of saliva ,vomiting constipation giddiness and diabetic when we intake day time.in addition it gives beauty to our body.it has sour taste that is relieved kapha^[40] .

Scientific validation (Seed of *Emblica officinalis*)

The seed of *Emblica officinalis* contain high antibacterial, anti-oxidant property and antimicrobial drugs^[32].The fruit of Indian Gooseberry had less antioxidant activity than the seed.

5. *Piper nigrum*

Family: Piperaceae

Parts use: Dried fruit.

Constituents: Alkaloids (Piperine , Chavicine , Piperidine , Piperetine) and Essential oil.

Taste: Pungent, Bitter

.erutaretil ahddiS

Vellaik milakaruntha veeru kirakani ponk

Nell kappa vaathanth thaan oodu - mulla

Suram pokunth theepana maanth thona meham pomunth

Thirampaarth thevarkku theri'

Explanation

White pepper is used for diarrhea, *vatta* aggravating condition .It act as digestion stimulant.

Scientific validation (Dried fruit of *Piper nigrum*)

Piper nigrum or piperine also found to decrease lipid peroxidation *in vivo*, reported to possess antioxidant activity ,found to prevent the oxidative stress, proprieties of memory enhancing , effective immunomodulatory , antitumor activities ,non-genotoxic and found to possess anti-mutagenic and anti-tumor influences, anti-inflammatory, analgesic, and anti-arthritic activities, produces an antidepressant and anticonvulsant activity .

6. Cow milk

Taste: Sweet

Siddha literature

'Kanneyakattrunksayarokanth than pokku

Mannilullapaalthosammaatrunkkaan- penney

Iraththapiththampokkumiraasavarupank

Karuththapasumpaalthanaikkaan'

Explanation

Cow milk is used for eye disorders and respiratory diseases and imbalance of humor and hematological condition^[41].

Scientific validation of cow milk

Support the hormone associated with mood, appetite sleep ,depression, chronic fatigue, reducing Post-Menopausal symptoms prevents migraine headaches, supports skin hydration inflammation, slow metabolism , stress resistance. Important for cellular function, hydration, building bone density, circulation, detoxification, muscle health and metabolism and also happen to be three minerals many people are deficient in^[38]. Making it agile and youthful. Milk can help to ensure long life, the combination was known as “the elixir of life.”

SCIENTIFIC APPROACH OF ‘KALPA’

Different free radicals attack on membranes causing oxidation of lipids, loss of different enzyme activities and may cause cancer. Antioxidants completely stop or delay the process of oxidation. Anti-oxidant protection system scavenge both radicals and related non radical oxygen species^[33]. Scientific explanation behind the anti-aging properties, because anti-oxidants attack the free radicals which so drastically affect the organ systems^[38].

RESULTS AND DISCUSSION

Table 1: Potency of the ingredients of *Pancha Kalpa* in the healthier life.

Name of the ingredients	Strengths in <i>siddha</i> literature		Strengths as per scientific validation
	<i>Taste</i>	<i>Medicinal use</i>	
<i>Azadirachta indica</i>	Bitter	Relieve pain, Used in any poisonous condition, fever and coma.	General health promoter Anti-oxidant activity Immune stimulant activity Anti-inflammatory Anti-pyretic Analgesic activities Anti-fertility effect Anti- malarial activity Anti-bacterial activity
<i>Curcuma aromatica</i>	Bitter & Sweet	To increase the potency and memory power ,and as well as used for wound ,skin rashes ,worm infestation, imbalance of digestion .	Free radical scavenging Immunological effects Wound healing Anti-oxidant Anti-Inflammatory Anti-Tumor Anti-fungal Anti- microbial Anti-diabetic Anti- platelet Mosquito repellent activity Anti- melanogenic activity
<i>Terminalia chebula</i>	Sweet, Astringent, Bitter, Sour & Pungent	Used for disease in mouth, neck, tongue and penis as well as used in varicose ulcer, obesity, chronic wound, jaundice, plant poisonous condition.	Anti-oxidant activity Radio protecting Ability Immune modulator activity Anti-aging activities Inhibition of cancer cell growth Wound healing effect Anti-microbial Effect

<i>Emblica officinalis</i>	Sour, Astringent ,Sweet, Bitter & Pungent	Described as gift of sea that is relieved mental disorders, kapha disorders, sinusitis, excessive secretion of saliva, vomiting constipation giddiness and diabetic, in addition it gives beauty to our body.	Anti-oxidant activity Anti-bacterial
<i>Piper nigrum</i>	Pungent&Bitter	Used for diarrhea, vatta aggravating condition .It acts as digestion stimulant.	Anti-oxidant activity Anti-cancer activity Immuno modulatory activity Anti-microbial activity Anti-inflammatory activity Hepatoprotective activity Anti-depressant activity Anti-convulsant activity
<i>Cow milk</i>	Sweet	Used for eye disorders and respiratory diseases and imbalance of humor and hematological condition.	Anti-aging Properties Cleansing properties Sedative Anti-microbial Anti-bacterial Properties

Our forefathers had a special way of transferring and documenting traditional heritages. one among them is through documenting the traditions through popular sayings for example our focused *Pancha kalpa* has such popular sayings, ensures longevity and freedom from illness as mentioned in the Inscriptions (ARE 248/1923) , The preventive and curative measures prescribed by *Siddhars* thousands of years ago will definitely be useful to reduce the death percentage from diseases .

These sayings may look like exaggerated once but ingredients have been proved through in-vitro and in-vivo studies that this ingredients of *pancha kalpa* proven general

health promoter, Anti-oxidant activity, Immuno-stimulant activity, Anti-inflammatory, Anti-pyretic, Analgesic activities, Anti-fertility effect, Anti-malarial activity, Free radical scavenging, Wound healing, Anti-microbial, Anti-diabetic, Mosquito repellent activity, Anti-melanogenic activity, Radio protecting ability, Anti-aging activities, Inhibition of cancer cell growth, Hepato-protective activity, Anti-depressant activity, Anti-convulsant activity, Anti-aging, Cleansing properties and Sedative.

Free radicals cause many diseases. Different free radicals attack on membranes causing oxidation of lipids, loss of different enzyme activities and may cause cancer. Antioxidants completely stop or delay the process of oxidation. Plants are important source of antioxidants^[33]. The aging process has been ascribed to different mechanisms by multiple theories^[11].scientific explanation behind the anti-aging properties, because antioxidants attack the free radicals which so drastically affect the organ systems. They are also one of the primary causes behind skin degradation, wrinkles, blotches, and general failing health of your body's largest organ, the skin^[38]. Bitter and Sweet taste of ingredient are relatively high. Tastes can also correlate to our life experiences and emotions. Emotions can affect the body in a similar way to the tastes and can be even more powerful. In this study the ingredients contain bitter and sweet tastes were high. A "sweet" experience usually brings us nourishment, growth and contentment, while too many "bitter" experiences can have less desirable long-term effects, such as excessive stimulation on the nervous system and reduction of body tissues^[41]. Taste of *Pancha kalpa* found to be efficacious in healthy life.

CONCLUSION

The Study and the concepts of *panchakalpa vithi* lead to longevity and fountain of youth with complete freedom from illness. That medicated head bath has definitely a significant role in controlling the diseases and purification of body. It is the need of time for prevention of such wide spreading disease. Further researches should be conducted on other various measures to gain confidence over the *siddhar's* natural discipline. Thus it can be done successfully through holistic principles of traditional medicine.

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