



Review Article

AN OVERVIEW OF *ANNAKAADI* (RICE VINEGAR) IN SIDDHA SYSTEM OF MEDICINE

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ABSTRACT

Siddha system of medicine established by ancient Siddhars is based on Dravidan (Tamilian) culture. In this system of medicine some peculiarities are there like *Annakaadi* (rice vinegar), *Amuri* (Siddha elixir), *Jayaneer* (salty extraction), *Theeneer* (distillates) which are used as medicines for treating various illnesses and used as precursor for higher order medicine. Nowadays these special things are away from our day today practice because lack of knowledge, non availability of ingredients, unknowing the preparation techniques, long duration for preparation, etc. *Annakaadi* is one of the Siddha resources, obtained from fermented rice water. In Siddha system of medicine, the *Annakaadi* plays a vital role in the purification process of various raw materials like *Naabi* (*Aconitum ferox*), *Serankottai* (*Semecarpus anacardium*), iron, zinc, arsenic, copper sulphate, *Palagarai* etc., in medicine preparation especially higher order medicine (*Parpam*, *Chenduram*) preparation, in medicine administration as adjuvant, and in external therapies. Clinically it is used for the management of Urinary Tract Infection, Diarrhoea and Gastritis. Nowadays the practitioners used commercially available vinegar instead of *Annakaadi* for their practice but commercially available vinegar is totally different from the Siddha preparation of *Annakaadi*. This study is aimed to review the preparation method and importance of *Annakaadi* in Siddha system of medicine from various ancient literatures. This study concluded that the *Annakaadi* in Siddha, it is an essential one for detoxification, preservation, preparation of higher order medicine and treat the emerging conditions. Further analytical and clinical studies are to be carried out to confirm its importance and efficacy.

**KEYWORDS:** *Annakadi*, Rice vinegar, Siddha Medicine.

INTRODUCTION

Siddha system of medicine uses natural resources like herbals, metals, minerals and marine products for medicine preparation and treats the various illnesses. Some special resources also have been used in this system of medicine like honey, *jayaneer* (salty extraction), crab water (*Nandu Kuzhi Neer*)<sup>[1]</sup>, *Amuri*<sup>[2]</sup> (Siddha elixir prepared from banana stem), termoite soil (*Putran soru*), *Annakaadi* etc. These special resources are used for higher order medicine preparation like *Parpam*, *Chenduram*, *Pathangam*, *Kuru Kuligai*, etc. particularly in detoxification, preparation, preservation process and in medicine administration. When using these resources for above said process, it helps to increase the shelf life of medicine, enhance the potency of medicine and reduced the untoward effects.

*Amuri*, *Muppu* and *Guru* are the three fundamental *Kalpa* preparations that find esteemed place in various Siddha books and manuscripts.<sup>[3,4]</sup> *Kaadi* is used in *Muppu* preparation (*Pooneeru*) as a base-exchangeable medium. However, many

researchers and medical practitioners use *Kaadi* in very different forms (up to 80).<sup>[5]</sup> There are numerous names for *Kaadi*, which are confusing and lead to misunderstanding; many products have no relation to *Kaadi* at all. Those who successfully handle *Kaadi* enjoy the benefits of using it and establish themselves as very successful Siddha medical practitioners.<sup>[6]</sup>

*Kaadi* is a fermented liquid consists of various chemical compounds which extracted from the boiled rice of *Karunguruvai* and *Samba* paddy grains. The fermentation process of boiled rice material is carried out based on the traditional method for preparation of the *Kaadi* extract. The base change properties of *Kaadi* extract is important in the *Pooneeru* preparation and it is used as Base Exchange solution in preparation of Siddha drugs. There are several steps involved in *Kaadi* preparation. *Kaadi* is an important solvent/ mineral water used in Siddha medicine. Unfortunately, Siddha doctors forget its importance due to a lack of practical knowledge.<sup>[6]</sup>

In this view, the *Annakaadi* is one of the Siddha resources which are obtained from fermented rice water. In Siddha system of medicine, the *Annakaadi* plays a vital role in the purification process of various raw materials like *Naabi*, *Serankottai*, iron, zinc, arsenic, copper sulphate, *palagarai* etc., in medicine preparation especially higher order medicine (*Parpam*, *Chenduram*) preparation, in medicine administration as adjuvant, and in external therapies. Clinically it is used for the management of Urinary Tract Infection, Diarrhea and Gastritis. Nowadays the practitioners used commercially available vinegar instead of *Annakaadi* for their practice but commercially available vinegar is totally different from the Siddha preparation of *Annakaadi*. The *Annakaadi* preparation is clearly mentioned in Siddha literatures.

Vinegar is an impure acetic acid made by the acetous fermentation of sweet fruits, rice, toddy, sugar, honey, etc. It is purple in color, sour in taste with a sort of flavor. It is a cooling agent and a vermifuge. Mixed with sugar, it is a refrigerant and as such used in fevers, it serves as an excellent external application in cases of burns, scalds, abrasions etc. It is found useful in alkaline and other kinds of poisons promoting giddiness. In Europe, it is prepared from malt or unmalted grains such as wheat, barley etc., by acetous fermentation. This acid liquid is applied to gangrene, incipient mammary abscess, sprain and other local affections. In India, vinegar is largely prepared from the palm toddy or the Sacchrine juice of the Palmyra and Coconut palm as also from the juice of Sugar cane.

Domestically it is used in pickles as a preservative and for baking hard substances easily. When soaked in lime, it serves as an excellent application in sprains, head ache and poisonous bites. It is used also like-wise in cases of menstrual complaints and bleeding from the nostrils.

The following are different varieties and each kind is named after the substances, from which it is extracted,

- *Pazhokkaadi*- Fruits vinegar
- *Arisikkaadi*- Grain vinegar
- *Kallukkaadi*- Toddy vinegar
- *Sarkkaraikkaadi* - Sugar vinegar
- *Kadalaikkaadi*- Bengal gram vinegar
- *Echamkaadi*- Date vinegar
- *Panankaadi*- Palm vinegar
- *Thennakkaadi*- Coconut vinegar

- *Thiratchaikkaadi*- Grape vinegar
- *Kanjikkaadi*- Rice vinegar
- *Aarumathakkaadi*- Six months vinegar
- *Seemaikkaadi*- Malt vinegar

#### ***Kaadi Jeyaneer***

It is a strong pungent fermented liquid filtered after exposed in the sun's rays a solution of lime water and the coconut extract obtained from a mixture of tender coconut and its water. This is used for preparing *Chenduram* (Red oxides).

#### ***Kaadi Soru***

Rice taken out of sour gruel. This rice when made into a paste and when applied on abscess for healing.

#### ***Kaadi Thelineer***

Vinegar from black *Kuruvai* or Dark red paddy allowed to ferment in the summer after exposure to the sun and then filtered after six months according to the process lay down in Boger's works. It is administered internally as well as externally for various diseases and chiefly for grinding medicines with, for purposes of Calcinations.<sup>[7]</sup>

Hence, an attempt has been made to review the literatures to collect the information about *Annakaadi* and its uses in traditional Siddha medicine. From this review study, the commercially available rice vinegar is not equivalent to traditionally prepared *Annakaadi*, traditionally prepared *Annakaadi* could not be replaced by Vinegar and it's not suitable for Siddha medicine preparation particularly higher order Siddha medicines.

#### **Method of Preparation<sup>[8, 9]</sup>**

325gm of *Karunkuruvai* rice is cooked in a big mud pot. The boiled rice and gruel are poured into a pot and 7800 ml of water is added to it. The mouth of the pot is closed with a white cloth and placed in the sunlight for *Suriya pudam*. Once in a week the pot is changed. After one month, the boiled rice in the pot dissolves or disappears. Then again put 325 gm of boiled rice to that pot. Repeat the same process for several months and only add 325gm of boiled rice once in a month. After 3 months the rice vinegar is ready for medicinal use. But after 6 months the sourness of the rice vinegar will increase and it necessary to change the pot once in 4 days. According to the Siddha literatures, *Annakaadi* which is prepared by placing in sunlight for 6 months will be more effective.



Fig-1&2: Karunkuruvai Rice



Fig-3: Fermentation Process



Fig 4: Annakadi @ 1<sup>st</sup> Day



Fig-6: Annakadi

#### Annakaadi Used as Agent / Ingredient for Siddha Purification of Raw Materials

Siddha system emphasizes the *Suthi* (purification) process of a drug before it is incorporated in medicinal preparations especially for the Schedule E (1) drugs which are listed in Drugs and Cosmetics act. The detoxification of any drug or removing its toxic material before it is used in medicine to counteract the toxic symptoms and to enhance its efficacy is termed as *Suthi murai* (purification process). *Suthi murai* is being employed for all poisonous drug from herbs, minerals, metals and animal origins and it is recommended for all drugs to remove their *Kutram* (impurities or unwanted toxic content) which is done by various pharmaceutical procedures like boiling, frying, washing, triturating with various plant juices, *Pudam* (calcination) method, grinding with specific organic or inorganic materials, soaking in specific medium

hereby minimizing the toxicity of the substances and strengthening the efficacy of the drug .

*Suthi* is done to reduce the toxicity of the drug by potentiating the conversion of high toxic components to less toxic molecules or chemical structure. Siddha classical text emphasized various methods of *Suthi muraigal* to overcome the unwanted side effects from various poisonous and non-poisonous drugs, involving different media specific to substances such as *Pasum chaanam* (cow dung), *Komium* (cow's urine), *Erumai chaanam* (buffalo dung), *Arisi kaadi* (rice vinegar), herbal *Kasayams* (decoctions), herbal juices etc. A number of purification processes have been recommended in Siddha texts. [1]

The following raw materials which are commonly used in Siddha system of medicine for higher order medicine preparation have been purified / detoxified by using rice vinegar.

They are listed in Table. No:-1. [1,10-14]

Table. No: 1. Raw Materials Purification/ Detoxification Using Annakadi (Rice vinegar)

S.No	Raw Materials		Purification / Detoxification Method
	Siddha name	Scientific Name	
1.	<i>Kantham</i>	Magnetic Oxide of Iron	Boiling / Soaking
2.	<i>Ayam</i>	Ferrum	Soaking
3.	<i>Eggu</i>	Steel	Soaking
4.	<i>Manduram</i>	Ferroso Ferric Oxide	Soaking
5.	<i>Rasam</i>	Hydrargyrum	Washing / Kneading
6.	<i>Lingam</i>	Red Sulphide of Mercury	Soaking

7.	<i>Ganthagam</i>	Sulphur	Steaming
8.	<i>Thalagam</i>	Yellow Arsenic Trisulphide	Soaking
9.	<i>Vellai padanam</i>	White Arsenic	Soaking and boiling
10.	<i>Induppu</i>	Sodium Chloride Impura	Soaking
11.	<i>Kari uppu</i>	Sodium Chloride	Boiling
12.	<i>Vengaram</i>	Sodium Biborate	Grinding
13.	<i>Komethagam</i>	Zircon	Surrukida
14.	<i>Maanikkam</i>	Ruby Carbuncle	Surukkida
15.	<i>Muthu</i>	Pearl	Soaking
16.	<i>Abbiragam</i>	Mica	Soaking
17.	<i>Krishna Appiragam</i>	Mica	Grinding/ Soaking
18.	<i>Thambiram</i>	Copper	Soaking
19.	<i>Kaariyam</i>	Plumbum	Melting and pouring ( <i>Urukki sayithu</i> )

### **Annakaadi Used as Ingredient for Siddha Medicine Preparation**

*Annakaadi* has been used as a ingredient/ grinding substance/ pro-drug in different Siddha formulations particularly in higher order medicine like herbo - mineral, herbo-metallic preparations which are more effective because, it has long self-life, very minimal dosage is effective and recommended medication period is also very short. *Annakaadi* has been used for the following medicine preparations. (Table.2).<sup>[1,11,14-18]</sup>

**Table 2: Siddha Medicine Preparation by Using *Annakaadi* (Rice vinegar)**

S.No	Name of Medicine	Method of Preparation	Therapeutic Uses
1.	<i>Aya Chenduram</i>	Burning	Painful condition, bleeding disorder, respiratory symptoms and increase the quality of sperm
2.	<i>Narayana Manduram</i>	Grinding	Anaemia, edematous conditions, liver disease, indigestion, gastritis, tuberculosis, painful condition, bronchial asthma
3.	<i>Mandurathy Adai Kashayam</i>	Boiling	Oedema, Ascites, abdominal discomfort. Tumors
4.	<i>Veera Kuzhambu</i>	Washing	Edematous conditions, lymph adenitis, external piles, thyroid tumor
5.	<i>Kariuppu Dhiravagam</i>	Distillation	Digestive disorder, arthritis
6.	<i>Pottiluppu Dhiravagam</i>	Distillation	Excessive urination
7.	<i>Annabethi Chenduram</i>	Grinding	Diarrhea, anaemia, fever
8.	<i>Kandha Chenduram</i>	Soaking	Anaemia, dropsy, jaundice, Ascites
9.	<i>Appiraga Chenduram</i>	Kneading	Diabetes, diabetic carbuncle
10.	<i>Sikkanjar Sarbath</i>	Mixing and boiling	Vomiting, nausea, indigestion, heart burn
11.	<i>Arakku Thylam</i>	Mixing	All types of fever, headache, anaemia, respiratory disorders
12.	<i>Panjapaandu ilagam</i>	Mixing and boiling	Anaemia, ascitis, jaundice, abdominal discomfort
13.	<i>Erikunma Usitham</i>	Mixing	Gastritis
14.	<i>Rana Sukkira Mathirai</i>	Grinding	Dull vision
15.	<i>Raja Viresana Kudineer</i>	Soaking	Anaemia, abdominal tumor, uterine tumor, chronic constipation

16.	<i>Bedhi Pachai Ennai</i>	Mixing	Worm infestation, chronic constipation
17.	<i>Maha Vindhathi Kuligai</i>	Grinding	Diabetes, leucorrhoea, urinary tract infection, piles, diarrheal disorder, fistula in ano
18.	<i>Neerkattu Usitham</i>	Mixing	Urinary disorders
19.	<i>Karpooravalli Sarbath</i>	Mixing	Cough, bronchial asthma
20.	<i>Puthina Sarbath</i>	Mixing and boiling	Improves the quality of semen
21.	<i>Kanthaga Chenduram</i>	Mixing	Venereal diseases
22.	<i>Thalaga Parpam</i>	Burning	Cough, tuberculosis, fever

### **Annakaadi Used as Anubanam (vehicle)**

#### **For Siddha Medicines**

In Siddha system of medicine vehicle (*Anubanam*) plays a major role in drug administration. Single medicine is recommended for different diseases with different vehicles. The therapeutic effect of the medicine is automatically changed when vehicle is changed. For example *Thanga* (gold) *Parpam* is recommended for *Vatha*, *Pitha* and *Kabha* diseases when choosing milk, butter and curd as vehicle respectively.<sup>[1]</sup>

*Annakaadi* has been used as a vehicle (*anubanam*) for Siddha drug administration e.g. *Sanjeevi Mathirai*,<sup>[19]</sup> *Kantha papam*, *Naga parpam*, *Thalaga parpam*.<sup>[1]</sup>

#### **DISCUSSION**

Siddha system of medicine mainly depends on the natural resources for medicine preparation and treatment. In this view some natural extracts like *Panineer*, *Sunaineer*, *Pathaneer*, *Panakal*, *Thennankal*, *Annakaadi*, etc are used as a prodrug or one of ingredient in medicine preparation particularly higher order metallic and mineral preparation. In this view the *Annakaadi* (Rice vinegar) is commonly used for purification of raw materials particularly schedule E drugs, medicine preparation particularly *Pashanam* (mercurial and arsenic) preparations, *Anubanam* (vehicle) for *Parpam* and *chenduram*, and external application in Siddha system. In this review, it has been collected from various Siddha literatures and compiled its importance for Siddha medicine. But nowadays the Siddha practitioners are using the commercially available rice vinegar which is not equal to our traditional *Annakaadi*. If the practitioners are using the commercial rice vinegar for medicine preparation we could not expect the quality in medicine preparation and therapeutic effect because it is totally different from traditional *Annakaadi*.

#### **CONCLUSION**

Siddha practitioners when using traditional *Annakaadi* for medicine preparation and treatment it might be very useful for quality medicine preparation and effective treatment. Further qualitative

confirmatory studies to be conducted in future which may boost the use of *Annakaadi* in various medicines.

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#### **REFERENCES**

1. R.Thiyagarajan; Gunapadam, Thathu Jeeva Vakuppu; Directorate of Indian Medicine and Homeopathy, Chennai; 2<sup>nd</sup> Edition- 2006.
2. R.Sudha et al., Amuri - an elixir from Musa paradisiacal L; Indian Journal of Traditional Knowledge; Vol.3(2), April 2004; PP 168-176.
3. Thirumoolar; Thirumandhiram 3000; Vidhyarathnakaram Press; 1940.
4. Thiruvalluva Nayanar; Pancha Rathinam-500; Rathnanayakkar & Sons, Chennai; 1968; 199.
5. Ramasamy Khon G. Agasthiyar Amutha kalai Kiyanam 1500 (In Tamil) Sri Ramachandran Vilasam Publishers; Madurai, Tamil Nadu, India. 1964:136e137.
6. Eleza Chellakkan et al., Preparation and chemical characteristics of Karunguruvai Khadi used in the traditional Siddha formulation of herbo-mineral-based medicine; Journal of Traditional and Complementary Medicine 6 (2016).
7. T.V.Sambasivam Pillai; Tamil English Dictionary of Medicine (Chemistry, Botany and Allied Science) Vol-II; Published by The Research Institute of Siddhars Science, Madras;1931.
8. M.S.S Aasaan, *Anubava Vaithiyak Kalangiyam*; Darjon Publication, Nagercoil, 1992.
9. S.Veeraperumal Pillai; *Nam Naatu Vaithiyam*; Shanmuganandha Book Depo, Chennai, 2012.
10. Sikicharatnadeepam, Part-1; C.Kannusamy pillai, B.Ratna nayakkar and sons, Chennai-79.
11. C.Kannusamy pillai; *Pathartha guna vilakkam*; Part-1; B.Ratna nayakkar and sons, Chennai-79.

12. Hakim mohammed abdulah sahibu; Anupoga vaidya navaneetham; Part-4; Thamarai noolagam, Chennai-26.
13. Hakim mohammed abdulah sahibu; Anupoga vaidya navaneetham; Part- 5; Thamarai noolagam, Chennai-26.
14. Hakim mohammed abdulah sahibu; Anupoga vaidya navaneetham; Part- 6; Thamarai noolagam, Chennai-26.
15. C.Kannusamy pillai; Sikicharatnadeepam; Part- 2; B. Ratna Nayakkar and sons, Chennai-79.
16. Hakim mohammed abdulah sahibu; Anupoga vaidya navaneetham; Part- 8; Thamarai noolagam, Chennai-26.
17. Hakim mohammed abdulah sahibu; Anupoga vaidya navaneetham; Part- 9; Thamarai noolagam, Chennai-26.
18. Hakim mohammed abdulah sahibu; Anupoga vaidya navaneetham; Part- 9; Thamarai noolagam, Chennai-26.
19. Hakim mohammed abdulah sahibu; Anupoga vaidya navaneetham; Part- 7; Thamarai noolagam, Chennai-26

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