



A Review on Annabedhi Uppu – A Siddha Herbo – Mineral Formulation

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ABSTRACT

Siddha medicine is one of the oldest medical systems in the world. This system is most commonly practised in India, especially in southern regions. *Annabedhi Uppu* is widely used in the Siddha system of medicine to treat anaemia and liver injury. It is mentioned in the Classical Siddha textbook "*Nam Naattu Vaiththiyam*" and authored by Judge Balarammayya. *Annabedhi uppu* is the combination of *Annabedhi*, *Lingam* and *Gandhagam*. *Annabedhi* is one of the *Uparasam* (hydro chemicals), *Lingam* comes under the *Panchasootham* (mercury and mercurial components) and *Gandhagam* comes under the *Paadaanam* (Arsenic compounds). As per Siddha literature, *Annabedhi uppu* indicates *Perunkazhichchal*, *Kalleeral Iranam*, *Vaatha suram*. This *Uppu* may be given for all diseases with suitable *anubanam* as an alternative medicine. Here, an attempt has been made to review the explored ethnopharmacological activities of the ingredients of *Annabedhi uppu* to strengthen the scientific facts favouring this formulation.

Keywords: *Annabedhi*, *Annabedhi uppu*, literature review, Siddha.

INTRODUCTION

Siddha system of medicine (SSM) is one such ancient traditional system of India and is practised mostly in its southern part for treating various diseases including even chronic conditions¹. In the Siddha system of medicine, *Marundhu* (medicine) is classified into 32 *agamarundhu* (internal medicines) and 32 *puramarundhu* (external medicines).

The system has developed a rich and unique treasure of drug knowledge in which the use of *Mooligai* (herbals), *Thaadhu* (metals and minerals) and *Jeeva porutkal* (animals) is very much advocated². Sage *Bogar* classified the *Thaadhu porutkal* (inorganic substances) into the major elements such as *Ulogam* (metals), *Kaarsaaram* (minerals), *Uparasam* (secondary minerals), *Paadaanam* (mercury and arsenic compounds)³.

Annabedhi Uppu is commonly used in the Siddha system of medicine to treat anaemia and liver injury. It is mentioned in the Classical Siddha textbook "*Nam Naattu Vaiththiyam*" and authored by Judge *Balarammayya*. *Annabedhi uppu* is the combination of *Annabedhi*, *Lingam* and *Gandhagam*.

Annabedhi is one of the *uparasam* (hydro chemicals), *lingam* comes under the *panchasoatham* (mercury and mercurial components) and *Gandhagam* comes under the *Paadaanam* (Arsenic compounds).

As per Siddha literature, *Annabedhi uppu* indicates *Perunkazhichchal*, *Kalleeral Iranam*, *Vaatha suram*⁴. This medicine is commonly prescribed for Hepatitis by Siddha practitioners. *Annabedhi* is mainly used for various types of anaemia, jaundice and diarrhoea.

Lingam is used for skin diseases, Bacterial and Viral infections, diarrhoea, anaemia, and Fever. *Gandhagam* is used for Skin Diseases, Fever, and polyurea.⁵

Various compounds that may prove to be therapeutically effective remain unexplored scientifically. Hence, it is time to explore the literature on the raw drugs used in the preparation of *Annabedhi uppu*.

MATERIALS AND METHODS

Ingredients of *Annabedhi Uppu*:

- ❖ *Annabedhi* (Ferrous Sulphate)
- ❖ *Lingam* (Red sulphide of Mercury)
- ❖ *Gandhagam* (Sulphur)
- ❖ *Elumichai Chaaru* (Lemon juice)

Procedure:

The purified *Annabedhi* is grinded with lemon juice to make *villai*. The *villai* is made to dry, put into a pit and seal, put it for 25 varieties, add lemon juice, and apply it again. Similarly, after applying it 5 times, for the 6th time, add one-eighth weight of the *lingam* and one-sixteenth weight of the *ganthagam* to the weight of the *paspam*.

Dose: 1-3 *nel edai* (65-195 mg)

Vehicle: Honey

Indication: *Kalleeralin Ranam*, *Piththa suram*, *Vaatha suram*, *Pasi mantham*, *Seethabedhi*⁴.



Table 1: Ingredients of *Annabedhi uppu*

S.No	Tamil Name	English Name	Botanical/ Chemical Name	Action	Indication
1	<i>Annabedhi</i>	Green vitriol	Ferrous sulphate	Tonic, Astringent, Haematinic	Anaemia, amenorrhoea, chronic pertussis cough, indigestion, worm infestation ^{6,9,10} .
2	<i>Lingam</i>	Cinnabar	Red sulphide of mercury	Alterative	Diarrhoea, fever, eczema, scabies, leprosy, and Vatha diseases ^{6,9,10} .
3	<i>Gandhagam</i>	Sulphur	Sulphur	Tonic, nutrient, laxative, cholagogue	Peptic ulcer, liver swelling, ascites, eye diseases, leprosy, diarrhoea ^{6,9,10} .
4	<i>Elumichai</i>	Lemon	Citrus limon	Carminative, Rubefacient	Vomiting, nausea, polydipsia, eye diseases and ear pain ^{7,8}

Table 2: Synonyms and tastes of the ingredients of the *Annabedhi uppu*.

Ingredients of <i>Annabedhi uppu</i>	Synonyms	Taste
<i>Annabedhi</i>	<i>Kalnaadham, annakalan, kalsavadu naadham, kalimbu, kalluvegam, malaiveeriyam, malairudhu, draavagathu kadungaara bedhi</i> ⁵	Astringent
<i>Lingam</i>	<i>Inguligam, aankuri, raasam, kadaivanni karpam, kalikkam, kaanjanam, kaaranam, sandagam, samarasam, saaniyam, chenduram, maniraagam, milachcham, vani, vanni</i> ⁵ .	
<i>Gandhagam</i>	<i>Kaarizhain naatham, parai veeriyam, atheetha piragaasam, peejam, selvivinthu, Sakthi, saththipeesam, chenduraththaathi, thanam, deviyuram, naatham, naatram, parai naatham, ponvarni, rasa suronitham</i> ⁵ .	Bitter and astringent.
<i>Elumichai</i>	<i>Sambeeram, Desikkaai</i> ¹¹ .	Sour

Siddha aspect of *Annabedhi*

S.No	Ingredients	Taste and its benefits
1	<i>Annabedhi</i>	Astringent acts as a blood count promotor ¹² . It solves the diseases that Iron can solve. It is highly used for anaemia, jaundice, and Hepatitis.
2	<i>Lingam</i>	Astringent acts as a blood count promotor ¹² . It cures kapha-related diseases. It is highly used for pyrexia, anaemia, and diarrhoea.
3	<i>Gandhagam</i>	Astringent acts as a blood count promotor ¹² . Bitter taste acts as a vermifuge ¹² . It is highly used for Pyrexia and skin diseases.
4	<i>Elumichchai</i>	The sour taste acts as a blood purifier. It also cures <i>Pitha-related</i> diseases like nausea, vomiting, and eye and ear diseases ¹¹ . It is used in many <i>Parpam, and Chenduram</i> medicine preparations as a grinding juice.

Scientific review***Annabedhi*:**

R. Arbind Kumar Choudhary. et.al., 2018 was conducted a comparative study between *Annabedi Chendhuram* and elemental iron in the treatment of iron deficiency anaemia and concluded that *Annabedi Chendhuram* and Elemental iron both are equally effective but in comparative in terms of side effects *Annabedhi chenduram* were slightly better than elemental iron¹³.

G. S. Lekha. et. al., 2015 reported the hepatoprotective activity of *Vedi Annabedhi chendhooram* in animal models. CCl₄ induced liver damage in Wistar rats. Pharmacological studies showed that the drug has significant hepatoprotective activity¹⁴.

Lingam

S Murugesan. et.al., 2018 conducted an acute and subacute study in Wister albino rats and the study confirmed that *Linga Chenduram* is practically non-lethal after acute exposure and sub-acute toxicity study, the *Linga*



Chenduram affects almost all vital organs the maximum dose range of 600 mg/kg¹⁵.

M. Ravichandran. et. al., conducted Anti-Microbial studies on Linga Kattu showing that Linga Kattu has potentially controlled the no. of microorganisms even in lesser concentrations against *Vibrio cholera*, *Pseudomonas aerogenosa*, *Staphylococcus aureus*, *E. coli*, *Citrobacter*, *Morganella*¹⁶.

Gandhagam:

P. Shanmugapriya. et. al., 2013 conducted a comparative study on Anti-microbial efficacy of *Gandhagam* (Raw Sulphur), Purified *Gandhagam* and Gandhaga Mezhugu and the study confirmed that *Gandhagam*, purified *Gandhagam* intermediates and processed Gandhaga Mezhugu samples have good antimicrobial efficacy against *E. coli*, *P. vulgaris*, *K. pneumoniae*, *S. aureus*, *S. mutants*, *C. albicans*¹⁷.

Sheeja T. Tharakan. et. al., 2010 conducted Toxicity Studies on Rasagandhi Mezhugu and concluded that an Acute toxicity study showed no death, sub-acute toxicity study revealed that the liver, kidney, spleen and thymus tissues of treated groups did not show any signs of toxicity¹⁸.

Lemon

ER Ekawati. et. al., 2019 conducted Antibacterial Potential against Diarrhea-Causing Pathogen on lemon and concluded that Lemon (*Citrus limon*) juice could inhibit the growth of pathogens that cause diarrhoea (*Enterotoxin Escherichia coli* (ETEC)¹⁹.

Kannan Raman. et. al., 2023 conducted a phytochemical analysis on Citrus lemon and concluded that Rutoside, Naringin, Eriocitrin, Hesperidin, and Quercetin are the major flavonoid components in lemon and thus had antimicrobial activity against COVID-19 virus²⁰.

Marta Klimek-Szczykutowicz. et. al., 2020 conducted a pharmacological study on citrus limon and confirmed that lemon juice has Flavonoids (hesperidin, naringin, apigenin, chrysoeriol, diosmetin, luteolin, isoramnethin, quercetin, rutoside, dihydroxyisoramnethin-7-O-rutinoside), phenolic acids (ferulic acid, synapic acid), and vitamins C, A, B1, B2, B3²¹.

CONCLUSION

Annabedhi uppu is widely used in the management of anaemia, pyrexia, skin diseases, diarrhoea, and hepatitis and the ingredients of *Annabedhi uppu* have hematinic, anti-microbial activity, hepatoprotective, anti-diarrhoeal activities. The above critical review of *Annabedhi uppu* revealed the preclinical and clinical efficacy of the ingredients. So, this study concluded that *Annabedhi uppu* is effective against anaemia, pyrexia, skin diseases, diarrhoea, and hepatitis. Further, clinical trials and pharmacological evaluation of this formulation must be evaluated for global recognition of the Siddha Herbo-mineral formulation *Annabedhi uppu*.

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