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LIST OF THERAPEUTIC ROOTS IN SIDDHA SYSTEM OF MEDICINE

S. Ramya*

Siddha Physician, Erode.

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***Corresponding Author**
Dr. S. Ramya
Siddha Physician, Erode.

ABSTRACT

Traditional medicinal system is mostly engaged with usage of herbs as a chief source. Humans from ancient period are depending upon herbs for their daily activity as a food or as a remedy. In many cases plant parts of leaf, flower, fruit, seeds, bark, stems, roots and hole pants are used. Using roots as a remedy are effective in many conditions. As following the famous quote from classical Siddha text ***"veerpaar thazhaipaar minjinakkal mella mella parpam chenduram pare"*** primarily roots are used to cure diseases. This review covers the usage varieties of roots in Siddha System of Medicine. Discussed with their cultivation, phyto-constituents present, actions, experimental activity, usage etc,.

KEYWORDS: therapeutic roots, Siddha System of Medicine.

INTRODUCTION

South India is well known for the Traditional Siddha System of Medicine. The foundations are laid by Ancient Siddhars who are 18 in number. Where Agathiyar is the foremost Siddhar among them. Herbal medicines are used for the betterment of the health of the humans. Siddhars gave us a lot of therapeutic preparation in Palm leaf manuscripts. Siddhars are well versed in Yogam, Aruvai maruthuvam, Varma maruthuvam, also gave us a lot of internal medicine and external medicines which is 32 in number of each. Lot and lots of drug are described in Gunavagadam.[1] Even the utilization of roots are very important in case of Pediatric illness.[2] Some of the medicinally important roots are discussed here.

Table 1: Represents therapeutic roots used in Siddha System of Medicine.[3,4]

S.no	Tamil name	Botanical name	Family	English name
1.	Naabi	Aconitum ferox	Rananculaceae	Indian aconite
2.	Athividayam	Aconitum heterophyllum	Rananculaceae	Indian atees
3.	Akkarakaram	Anacyclus pyrethrum	Asteraceae	Pellithry root
4.	Eechuramooli	Aristolochia indica	Aristolociaceae	Indian birthwood
5.	Thanner vittan	Asparagus racemosus	Liliaceae	Indian aspragus
6.	Sangan	Azima tetracantha	Salvadoraceae	Mistletoe Berrythorn.
7.	agasagarudan	Corallocarpus epigaeus	Cucurbitaceae	Bryoms
8.	Korai kizhangu	Cyperus rotundus	Cyperaceae	Nut grass
9.	athimathuram	Glycyrrhiza glabra	Fabaceae	Liquorice
10.	Sivanar vembu	Indigofera aspalathoides	Fabaceae	Wiry indigo
11.	Jadamanji	Nardostachys jatamansi	Valerianaceae	Valerian root
12.	Kadukurohini	Picrorhiza kurroa	scorphulariaceae	Picrorhiza
13.	Thippili	Piper longum	Piperaceae	Indian long pepper
14.	Vilamichu ver	Plectranthus amboinicus	Lamiaceae	White cus cus grass
15.	Venkodiveli	Plumbago zeylanica	Plumbaginaceae	Ceylon lead wort
16.	Senkodiveli	Plumbago indica	Plumbaginaceae	Rose colored lead wort
17.	Sarpagantha	Rauvofia serpentina	Apocynaceae	Serpentina root
18.	Jathikostam	Saussurea lappa	Asteraceae	Costus
19.	Sitramutti	Sida cordifolia	Malvaceae	Country mallo
20.	Parangipattai	Smilax china	Liliaceae	China root
21.	Paathirii	Sterreospermum suaveolens	Bignoniaceae	-
22.	Sathisaranai	Trianthema decandra	Aizoaceae	-
23.	Vettiver	Vetiveria ziznioides	Poaceae	Cuscus root
24.	Amukkura	Withania somnifera	Solanaceae	Winter cherry

THERAPEUTIC ROOTS USED IN SIDDHA

1. Naabi

Aconitum ferox belongs to Rananculaceae family. A.ferox is distributed in Himalayas from Sikkim, Assam. It is found in the altitude of 3600m height. It possess actions such as Narcotics, Diaphoretic, antiperiodic, antiphlogistic, diuretic, Sedative, antileprotic. It is one of the most powerful roots here the purification method is most important. The root has poisonous alkaloid is known as Dipterpenoid. It is also a Cardiotonic.[4,5] It is useful in case of incontinence of urine and spermatorrhoea. Tincture of root used internally for fever. For guinea worm used as a local applicant as A.ferox and Opium are made into paste using brandy.[14] In the case of rheumatism it is used as an external applicant in the form of paste. It is also used as an arrow poison. It is helpful in digestive cases, eliminated cold, hepato splenomegaly, gout, dyspnoea, RTI cases etc.[6] It has the alkaloids of Aconitine, Aconine, Picroaconine. A toxic content called Pseudo aconitine alakaoid present with cardio vascular diseases should not intake the combination of these medicines.[3] In chinese medicine aconitum is used for neuralgia, dropsy, dysentery. In ayurveda it is used for asthma.[5]

2. Athividayam

Aconitum heterophyllum belongs to Rananculaceae family. It is distributed in Himalayan forest in the height of 6000 to 15000 feet. It has an action of tonic, aphrodisiac, anti periodic. Roots are biennial, paired with branched tubers. It has a rich source of an active compounds and it is recently recorded. In market it is available in the name of Atees. In case of bilious fever aconite root 1 part with bonduc nut 2 part are taken and fine powder is administrated about 10 – 20 gm.[14] It is effective in treating bacterial, fungal, protozoal diseases. Has nervine seadative property. In medicinal preparation it is one of the active ingredient.[7] It possess an antiviral activity against mosaic virus. It is used as a single root with honey, karkadakasingi and thippili used to treat coughs. It was found in 16th century not easily available one. It contains alkaloids such as histine, heterophylline, heterophyllisine, heterophillidine, atidine, hetidine, hetisinone. Hypotension is produces by the alkaloid atisine. It also has a property of immune boosting.[8]

3. Akkarakaram

Anacyclus pyrethrum belongs to Asteraceae family. It is found in the Mediterranean region. Cultivated in Algeria.[5] It has the actions of stimulant, rubefacient, cordial. The dosage of this root is estimated to be 500mg to 1 g of powdered root. Root is used in the case of sciatica, hemiplegia, paralysis. In the alcoholic extract compared to xylocaine hydrochloride and posses local anaestheic activity for dental problems like tooth ache. Root decoction is used to gargle fro carries tooth.[14] It exhibited an experimental activity of tobacco induce mutagenesis. Another activity was performed in the case of reduction of glucose level in case of diabetes mellitus. The root has the contents of isobutylamide, inulin, trace amount of aromatic oil, pyrethrin, pellitorin.[3]

4. Eechuramooli

Aristolochia india belongs to Aristolochiaceae family.[3] It is found in the low hills of India. The dose of root powder for administration is about 3 – 6 g. it has the composition of Aristolochin as an alkaloid, Allaontoin bitter glucoside. Other compounds like aristolochic acid, aristolic, p-coumaric acid, nitrophenantherene compounds. It is effective in treating the skin diseases. It is one of the local irritant. It has the actions of stimulant, emmenagogue, diuretic, anti inflammatory, anti bilious, antiperiodic. Anti spermatogenic activity are seen in roots in alcoholic extracts. It has anti cancerous activity. Anti estrogenic activity are seen to

prevent implantation in early stage of pregnancy. On experimental process aristolochic acid possessed Kidney damage.[7]

5. Thanner vittan

Asparagus racemosus belongs to Lilliaceae family. Found in tropical and sub tropical regions of India in the height of 1500 m. it is commonly known as Shatavari. It is a climber. Content present in roots are Saccharine, Mucilage, Sarasasapogenin. The dried root has sitosterol, dihydroxy 2-O-benzaldehyde, minerals like Calcium, Copper, Magnesium, Manganese, Zinc, Sodium. It has the action of aphrodisiac, galactagogue, styptic, antispasmodic, tonic, # dose are estimated to be - 6 grams dried root.

#1 It cures the infection in female genito urinary tract infection. Also cures puerperal diseases, lactic disorder, gout, hematuria, hyperacidity, diarrhea, nervine tonic. It stops the uterine spontaneous moyility.

It has the property of wound healing. Anti allergic activity are seen in experimental activity. Immunomodulatory activity seen in rats and mice when orally given.[5,7]

6. Sangan

Azima tetracantha belongs to family of Salvadoraceae. It has an alkaloid called Azimine. It has the action of diuretic, stimulant, antiperioidic, expectorant, astringent.[3] It grows about 3 meter height it is a perennial shrub in hot areas. It is seen in central Eastern South Africa. Analgesic anti inflammatory, the chemical constituents are Flavonoid, Glycoside, Steroids, Carbohydrates, Azimine, Azcarpine, Carpine, neoascorbigen. It is useful in treating dyspepsia, dropsy, asthma, rheumatism, diarrhea. This root possess anti microbial activity with bacteria and fungi in a disc diffusion method. Anti bacterial activity seen In chloroform extract. In alcoholic extract anti bacterial and anti fungal effects are exhibited. The roots are also studied for the free radical scavenging activity in invitro assays of ABTS, DPPH, hydroxyl radical. Via experimental procedures it is shoed to be the best source of natural phenolic compounds. The root bark are used for confirming intoxicating hepatoprotective effect.[9]

7. Aagasakarudan

Corallocarpus epigaeus belongs to the family of Cucurbitaceae. This is employed in treating leprosy, anemia, herpes, eczema, asthma, snake bite, syphilis, asthma. It has the compounds

like tannin, phenols, flavonoids, terpenoids, glycosides. These also posses the killing bacterial strains. Anti microbial properties are experimented in this plant using petroleum ether, hexane, acetone, chloroform, in tuber and leaves. Anti bacterial activity re tested against the organisms of Klebsiella pneumonia, Pseudomonas aeruginosa, Serratia marcescens, Staphylococcus aureus in Potato dextrose agar in 4 degree slant.[3,10]

8. Korai kilangu

Cypeus rotundus belongs to the family of Cyperaceae. Height of the tree is about 30 -40 cm. Distributed in Africa, Western Indian Ocean, Western Asia, Middle Asia. It has a fibrous root system. Tubers measure about 1 to 3.5 cm. young white succulent on maturation it becomes dark brown in color. It is a monocot plant. It is used to treat fever, plydypsia, hypertension, diarrhea, calcaneal spur, emesis. Periodic usage of C.rotundus cures tuberculosis. It is used as an ingredient in bathing powder. It has the content of tannin, flavonoids, glycosides, protein, carbohydrate, starch, aminoacid, essential oils, linolic acids, oleic acid, terpenes, glycerol, furochromes. It possess the properties of anti diabetic, antipyretic, anti inflammatory, neuroprotective, hypolipidemic, insecticidal, diretic, astringent, tonic, diaphoretic, anti dysmenorrheal. Anti microbial acivity are studied by disc diffusion mehod using ofloxacine, rifampicine, amphotricine against Streptococcus and Staphylococcus species. Good acivity of oil of cyperus rotundus against anti bacterial and anti fungal activity on various bacterial and fungal species. It also played an important role in inhibiting spore formation. Experiment as conducted gainst mosquito vectors using C.rotndus in Hexane extract Anopheles culicifacies, Anopheles stephensi and Culex quinquefasciatus shoed excellednt repellent property. Oils of C.rotundus are used for the anticonvulsant activity by estimating the production of MES in rats.[3,11]

9. Athimthuram

Glycyrrhiza glabra belongs to the family of Fabaceae. It is a under shrub. It has the content of pectin, proteins, mucilage, tannin, saponin, alkaloids, starch, phenolic compounds, glycyrrhizin, glycyrrhizic acid, glycyrrhetinic acid, lipids, sterol, steroids. The roots are used to study for the memory and earning capacity in rats using aqueous root extract it enhanced the potential activity. Choline esterace activity are studied using root extract of G, glabra in mice to check the effect of glabradin in cognitive function. On giving it as a supplement it enhances the mental intelligence. It also plays an important role in the anti depressant activity. To evaluate the antimicrobial activity f root of G.glabra their root extracts are taken

and tested against the species of E.coli, Pseudomonas fluorescence, Bacillus cereus, Staphylococcus aureus the maximum inhibition of 15mm are seen. Anti cancer activity are checked for the intestinal carcinoma and prostate carcinoma by methonolic extract and exhibited its inhibitory activity. A study was conducted to demonstrate the broncho relaxant activity f G.glabra with Boswelllia carterii and prednisolone for 21 days.[3,12]

10. Thippili

Piper longum blongs to the family Piperaceae. It is helpful to treat snake bite, cough, wheezing. It is distributed in tropical and sub tropical regions of the Indian subcontinent. It is a perennial climber, long, slender, roots are woody plant it fruit is greenish in younger stage and becomes black when it get dried. Fleshy spikes are present with oval berries. Their root has ovule and embryo sac. Composed of parenchymal tissues with starchy granules. Phloem consists of peri vascular tissues. Pith is absent in it. Xylems are arranged in V shaped manner. It is traditionally used to treat swelling of joints by making decoctions. It has the volatile oil of caryophyllene and pentadecane, bisaboline, cymene, sesqueterpines, saturated aliphatic carbons. Piper longum and H. abelmoschus showed the best anti bacterial activity.[13]

CONCLUSION

The concept of usage of roots as a therapeutic agents are effective in treating so many disease conditions and are recorded with various experimental procedures in recent days. Either in the form of single drug or mutli drug combination is highly effective. Thus the review paper with the effectiveness of few medicinally used roots in Siddha System of Medicine.

REFERENCES

1. Ramya S, review on traditional and phyto-pharmacological aspects of Borassus flabellifer (Palmyra tree), International Journal of Reverse Pharmacology and Health, 2018; 1(1): 1-8.
2. Ramya.S, A Literary Review of Kakkanam maathirai for Pediatric illness, World Journal of Pharmaceutical Research (WJPR), 2018; 7(18).
3. Somasundaram.O, Maruthuva thavaraviyal Part 1, 6th ed, published by Ilango publication, Palayamkotai, Tirunelveli 627 002, India, 2014; 112-126.
4. Murugesamuthaliyar K.S, Siddha MateriaMedica (Vegetable section), 4th ed, published by Tamilnadu Sidhha Medical Council, Chennai, India, 1988; 1.
5. Khare C.P, Indian Medicinal Plants, 1st ed, published by Springer-Verlag Berlin/Heidelberg, Spring Street, New York, USA, 2007; 14: 47.

6. Sanjeev Rastogi, A review of Aconite (Vatsanabha) usage in Ayurvedic formulations: traditional views and their inferences, 2011; 1(4): 233-244.
7. Khare C.P, Indian Herbal Remedies, 1st ed, published by Springer-Verlag Berlin Heidelberg New York, USA, 2004; 15-16.
8. Buddhadev. G, Buddhadev. S.S, Complete review on *ativisha –aconitum heterophyllum* S. pharma science monitor, international journal of pharmaceutical sciences (IJPS), 2017; 8(1).
9. Sundaresan Nandhini, Ramalingam Radha, Pharmacognosy of Azima tetracantha lam.: A Review, International Journal of Ayurveda and Pharma Research (IJAPR), 2015; 3(12): 13-19.
10. Priyavardhini S, Vasantha K, Tresina Soris, P and Mohan, V.R, Efficacy of Phytochemical and Antibacterial activity of Corallocarpus epigaeus Hook. f, International Journal of Pharm Tech Research(IJPRIF), 2012; 4(1): 35-43.
11. Ali Esmail Al-Snafi, A review on Cyperus rotundus A potential medicinal plant, IOSR Journal Of Pharmacy, 2016; 6(7): 32-48.
12. Ali Esmail Al-Snafi, Glycyrrhiza glabra: A phytochemical and pharmacological review, IOSR Journal Of Pharmacy, 2016; 8(6): 01-17.
13. Maitreyi Zaveri, Amit Khandhar, Samir Patel, Archita Patel, Chemistry and Pharmacology of Piper longum l, 2010; 5(1): 67–79.
14. Nadkarni K.M, The Indian Materia Medica, vol 1,3rd ed, pubished by Bombay Popular Prakashan, 1976: 23-24.