

Medicinal Plants Used In Siddha Medicine for Treating Perumpaadu - A Review

¹Dr.S.Sivashanmugarajah BSMS(S.L), ²MD(S)(India)

Senior Lecturer, Unit of Siddha Medicine, University of Jaffna

Corresponding Author: Dr.S.Sivashanmugarajah Bsms(S.L)

Abstract: The term perumpaadu is used for menorrhagia in Siddha Medicine. This disease has been being treated with herbal drugs by Siddha Physicians from ancient time. Siddha literatures are in Tamil Language. Even though a very few Siddha books are found in Siddha Gynaecology, they have wonderful single and poly herbal preparations. This literature research deals with medicinal plants used in Siddha Medicine for treating perumpaadu. According to Materia Medica and Siddha Pharmacology large number of the herbs mentioned in Siddha literatures have astringent and anti haemorrhagic actions. Siddha knowledge of treatment of the menorrhagia may be beneficial to the researchers who are not speaking Tamil Language.

Key Words: Menorrhagia, Perumpaadu, Siddha Medicine, Herbs, Astringent

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I. INTRODUCTION

Menorrhagia is a common gynaecological problem in the world. This disease is treated with herbs by traditional medical practitioners. Their treatment methods vary and depends on the cause of the menorrhagia. The researchers have also interested to study about herbal treatment for menorrhagia. 'Menorrhagia management in Iranian Traditional medicine' studied by Mojgan Tansaz, Hajar Memarzadehzavareh, Marzieh Qaraaty, Tahereh Eftekhari, Malihe Tabarrai, and Mohammad Kamalinejad (2016)¹. Livdans-Forret AB, Harvey PJ, Larkin-Thier SM studied 'Menorrhagia : A Synopsis of Management focusing on Herbal and Nutritional Supplements, and Chiropractic'(2007)². 'Herbal Medicines in Idiopathic Heavy Menstrual Bleeding : A systematic Review' were carried by Roghayeh Javan and others(2016)³. In Sri Lanka, Steps are being taken to study about herbal treatment for gynaecological problems.

Siddha Medicine is one of the traditional medicine in India and Sri Lanka. It is well practiced in South India and Northern and Eastern Provinces of Sri Lanka from ancient period. Siddha Medicine has well developed with several branches. Siddha Gynaecology is an important branch. It is called as – Mahalir Maruthuvam, Penn Noi Eyal, Stheree Rogam, Kerppa Rogam, Maathar Noikal, Stheree Rogam in local term. It deals with diseases and treatments and general health of women.

Menorrhagia can be correlated with Perumpaadu in Siddha Medical literatures. T.V. Sambasivampillai stated that Perumpaadu is an immoderate secretion of menstrual discharge – menorrhagia⁴. Soothakapperukku, soothakapperukku, thuvaaalai, raththapperukku have been used synonymously in Siddha Gynaecology⁵. A detail description of perumpaadu is found in Siddha texts⁵⁻¹⁴. Aetiological factors, pathogenesis and prodromal symptoms are well described in these books. On the basis of Siddha pathophysiology, all types of perumpaadu are the results of vitiation of muththaathukkal(three biological humors in the body) and they are categorized into three groups namely Vali perumpaadu, Azhal perumpaadu and Iya perumpaadu according to the predominant kuttram(deranged mukutram).

Many patients in Northern and Eastern Provinces of Sri Lanka seek Siddha treatment for perumpaadu. In Siddha Medicine this disease is successfully treated with herbal, mineral and animal origin drugs. Among them herbal or plants origin drugs are large in numbers. Single or polyherbal preparations are more commonly used to treat perumpaadu. The objective of this study is to collect information of the medicinal plants prescribed in Siddha literature for treating perumpaadu.

II. METHODOLOGY

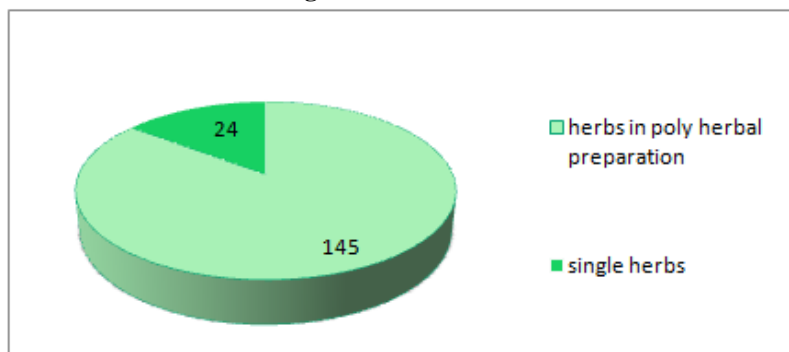
This is a literary research. The authentic Siddha texts available at the Library of the Unit of Siddha Medicine, University of Jaffna and personal collections of Siddha books and other relevant publications were the research materials. Perumpaadu disease is described in 14 books. Plant, mineral and animal origin drugs are prescribed to treat for perumpaadu. Plants from single and poly herbal preparations were included in this study. All the plants against perumpaadu were listed. The listed plants were conformed by consulting various flora, books and publications¹⁵⁻¹⁷. Their pharmacological actions or evidence to cure perumpaadu were also

conformed by consulting various traditional material medica and other publications¹⁸⁻²¹. Animal and mineral origin drugs were excluded. Data of local names of the plants, the plant parts used, medicinal forms and action(s) were tabulated. Collected data were analyzed by using MS office word and Excel.

III. Results And Discussion

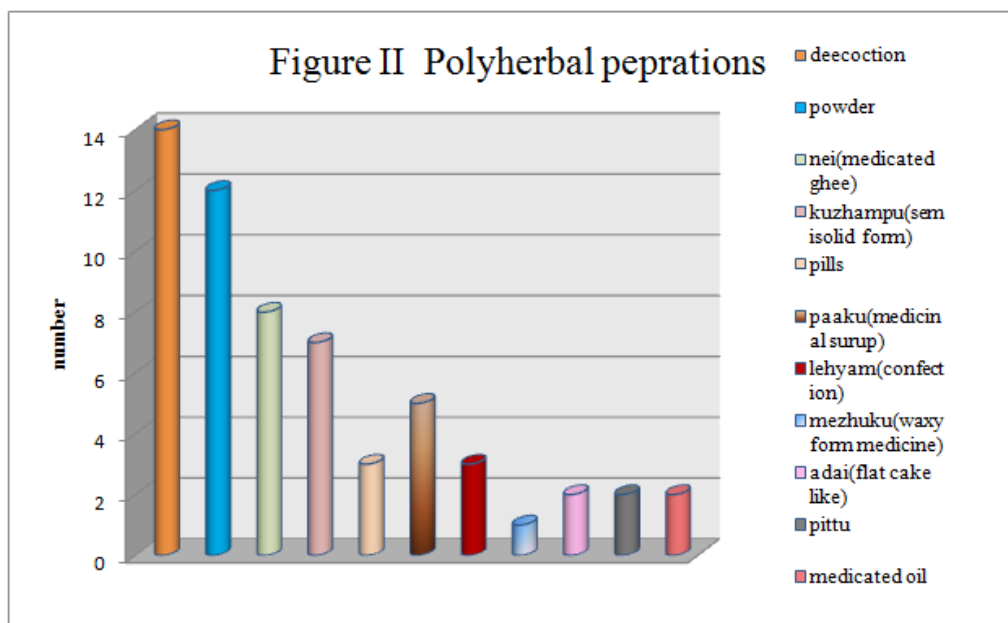
A total of 145 medicinal plants tabulated for treating perumpaadu. Among them 24 were single herbal formulation. most of the single herbs are also found in the poly herbal preparations.

Figure I Plants number



Poly herbal preparations are in the following forms. (1) Kudineer (Decoction), (2) Chooranam (Powder), (3) Nei (Medicated Ghee), (4) Oil (Medicated Oil), (5) Kulikai (Pills), (6) Paaku (Medicinal Syrup), (7) Lehyam (Confection), (8) Kuzhampu (Semi Liquid form Medicine), (9) Mezhuku(Waxy form Medicine), (10) Pittu (Dish of steamed rice flour prepared with flour of the bark or leaves of some herbs) (11) Adai (prepared with a paste of coarsely ground rice and herbs. Then it is baked in hot oven. It is a flat cake like dish/medicine) . Methods preparation of these drugs are found in Siddha Pharmacology literatures^{18,19}. According to Siddha literatures all these preparations are used internally. Totally , 59 poly herbal formulations were recorded in this survey. (see figure – II)

Figure II Polyherbal preparations



Among 59 formulae 14 were decoctions, 12 were powder, 8 were medicated ghee, 7 were kuzhampu, 3 were pills, 5 were medicinal syrups, 3 were lehyam , 1 was mezhuku, 2 were adai 2 were pittu and 2 were medicated oil.

Table – 1 Single herbal Formulation

(The plants are arranged in alphabetical order. Botanical name(B.N.), family(F), Tamil name((T), English name(E), the part(s) used and actions of the plants are given her under.)

Serial No.	Plant details	Part(s) used	Form	Action(s)
1.	Aegle marmeloos Corr, F – Rutaceae, T – Vilvai, E – Bael tree	Root ⁶	Decoction is given with cow's curd	Astringent ^{20,22,24,,23} Haemostatic ²³
2.	Aristolochia indica Linn, F – Aristolochiaceae, T – Peru marunthu, E – Indian Birth Wort	Root ,Leave ⁶	Extract is given	Control bleeding ¹⁵
3.	Balsamodendron caudatum , F – Burseraceae, T – Kiluvai, E – Myrrh	Bark ⁶	Extract is given with cow's milk	-
4.	Cassia auriculata Linn, F – Leguminosae, T – Aavaarai, E – Tanner's Cassia	Whole plant is used for perumpaadu ⁶	Given with buffalo's butter milk	Contain tannin Astringent ²²
5.	Celastrus panniculatus Willd, F – Celastraceae, T – Vaaluluvai, E – Staff Tree	Seeds ¹³	powder is given in the form of pittu	-
6.	Chrysanthemum indicum , F – Asteraceae, T – Sevvanthi	Flower ⁶	Extract is given with buffalo's curd	-
7.	Coldenia procumbens Linn, F – Boraginaceae, T – Seruppadai	Whole plant ¹³	Extract of whole plant is given with cow's milk	-
8.	Eugenia jambolana Laml, F – Myrtaceae, T – Naaval, E – Jambu Tree	Bark ^{10,12,13,}	Bark powder is given in the form of pittu	Astringent ^{20,22,23,24,26,} Uterine tonic ²⁴ Haemostatic ^{20,24}
9.	Ficus glomerata Roxb., F – Moraceae, T – Aththi, E – Country Fig	Bark ^{10,12}	Decoction is given	Astringent ^{20,22,23,24} Uterine tonic ^{20,24}
10.	Ficus religiosa Linn, F – Moraceae, T – Arasu, E – Peepul Tree	Bark ¹⁰	Bark powder is given in the form of pittu	Astringent ^{20,22,23,24 ,26} Uterine tonic ²⁴ Haemostatic ²⁴
11.	Gossipium herbaceum Linn, F – Malvaceae, T – Paruththi, E – Cotton Plant	Tender leaves, tender fruit ¹⁰	Decoction is given	Astringent ^{20,22} Haemostatic ²³
12.	Hibiscus rosasinensis Linn, F – Malvaceae, T – Sevvaraththai, E – Shoe flower	Flower ¹⁰	Flower juice is given	Astringent ^{20,22}
13.	Holoptelia integrifolia Planch F – Ulmaceae, T – Aayil, E – Indian Elm	Bark ^{10,13}	Decoction is used to prepare pittu for treating parumpaadu.	-
14.	Jasminum sambac Ait., F – Oleaceae, T – Mallikai, E – Jasmine	Leaves ⁶	Leave extract is given with cow;s milk	-
15.	Moringa oleifera Lam, F – Moringaceae, T – Murunkai, E – Drum Stick	Flower ^{10,13}	Extract of flower is given with cow's milk	Astringent ²⁴
16.	Murraya koenigii, F – Rutaceaes, T – Karuveppilai, E – Curry Leave	Bark ¹⁰	Bark powder is given in the form of pittu	-

	Tree			
17.	Odina wodier Roxb, F – Anacardiaceae , T – othiya maram, E – Rhus odina	Bark ^{10,13}	Bark powder is given in the form of pittu	Uterine tonic ²² Haemostatic ^{20,23,26} Astringent ^{20,23,26}
18.	Pandanus odoratissimus F – Pandanaceae, T – Thaazhai, E – Screw Pine	Vizhuthu ¹²	Tender part of the stilt root extract is given with cow's milk	-
19.	Punica granatum Linn., F – Punicaceae, T – maathulai, E – Pomegranate	Fruit shell ⁶	Given with palm jaggery	Astringent ^{20,22,23,24,26} Haemostatic ^{20,23}
20.	Sida acuta Burn., F – Malvaceae, T – Malai Thaanki,	Root ⁶	Given with buffalo's curd	Uterine tonic ²²
21.	Tamarindus indicus Linn., F – Leguminosae, T – Puli, E – Tamarind	Seed cover ⁶	Powder of the cover of the seeds is given with coconut milk	Astringent ^{20,23}
22.	Terminalia arjuna W & A., F – Combretaceae , T – Maruthu, E – The Arjuna Myrobalan	Bark ¹²	Decoction is given	Astringent ^{20,22,23}
23.	Tricodesma indicum, F – Boraginaceae, T – Kavil Thumpai	Leaves ¹³	Preparation of pittu is given	Control bleeding ²¹
24.	Zizyphus jujube Lam., F – Rhamnaceae, T – Elanthai, E – Indian Plum	Bark ¹⁰	Bark powder is given in the form of pittu	Astringent ^{20,22,23}

Out of 24 medicinal herbs 13 (54%) have astringent action. 06 (25%)have haemostatic action in addition to astringent. 04 (17%)have uterine tonic in addition to astringent. one plant (4%) has uterine tonic action without astringent. . These single herbal formulations are also simple preparations. They can easily prepared in the home.

Table – II- Herbs in the poly herbal formulation

(The plants are arranged in alphabetical order. Botanical name, family(F), Tamil name((L), English name(E), the part(s) used, medicinal form(s) and actions of the plants are given below.)

Serial No.	Plants details	Part used	Medicinal form	Action
1.	Abies webbiana Lindl – F – Coniferae, T – Thalisapaththiri, E – Silver Fir	Leaves	Kuzhampu ^{10,13}	Astringent ^{20,23}
2.	Abutilon indicum , F – Malvaceae, T – Thuththi, E – Indian Mallow	Root bark	Lehyam ¹³	Astringent ²² Haemostatic ²³
3.	Acacia Arabica Willd F-Leguminosae T – Karuvel, E – Babul tree	Gum Bark	Pill ⁶ Oil ⁶	Uterine tonic ²⁴ Astringent ^{20,23,24,26}
4.	Acacia catechu Willd F – Leguminosae T – Karumkaali , E – Catechu tree	Bark Gum	Decoction ¹⁰	Astringent ^{20,22,23}
5.	Acacia leucophloea (Roxb) Willd F – Leguminosae T – Vel Vel, E – White bark acacia	Gum Bark	Syrup ⁶ Decoction ⁶ Oil ⁶ Pittu ¹³	Astringent ^{20,23}
6.	Aconitum heterophyllum Wall F – Rununculaceae ,	Root	Adai ⁶ Nei ⁶	Astringent ²⁰ Haemostatic ²³

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	T – Athividayam, E – Indian Atees		Powder ⁹	
7.	Adhatoda vasica Nees , F – Acanthaceae, T – aadaathodai, E – Malabar nut	Leaves	Nei ¹³	Controle bleeding ²²
8.	Aegle marmeloos Corr, F – Rutaceae, T – Vilvai, E – Bael tree	Fruit Root	Nei ⁶	Astringent 20,22,23,24 Haemostatic ²³
9.	Allium ascalonium Linn, F – Liliaceae, T – venkaayam, E – onion	Bulb	Syrup ⁶	
10.	Allium sativum Linn, F-Liliaceae, T – Ulli, E – Garlic	Bulb	Pill ⁶ Decoction ⁶ Oil ⁶ Syrup ⁶ Powder ⁹	
11.	Aloe vera , F – Liliaceae, T – Katraalai, E – Indian Aloe	Flesh	Nei ⁶	
12.	Alpinia officinalis , F – Scitamineae, T – Siththaraththai, E – lesser galangal	Rhizome	Kuzhampu ¹³ Powder ⁹	
13.	Amaranthus tricolor F – Amaranthaceae, T – Siru Keerai, E – Amaranth	Leaves Root	Powder ¹⁰	Control bleeding ²² Astringent ¹⁵
14.	Anacyclus pyrethrum Dc., F – Compositae, T – Akkaraa, E – Pellitory of Spain	Bark	Nei ⁶ Powder ⁹	
15.	Andropogon squarrosus Hook.f, F – Gramineae, T – Elaamichchai, E – Cuscus Tree	Root	Nei ⁶ Kuzhampu ⁶ Decoction ^{6,10}	
16.	Aponogeton natans , F – Aponogetonaceae, T – Kottik Kizhanku		Nei ⁶	
17.	Aquilaria agallochia F – Thymelaceae, T – Akil, E – Aloes wood	Wood	Nei ⁶	Astringent ¹⁵
18.	Areca catechu Linn, F – Palmae, T – Kalippaakku, E – Betel Nut	Seeds Flower	Pill ⁶ Syrup ⁶ Decoction ⁶ Oil ⁶ Nei ¹⁰	Astringent – mm,gp,ka,jw
19.	Aristolochia bracteolate , F – Aristolochiaceae, T – Aaduthinnaappaalai, E – Worm Killor	Root	Nei ⁶	
20.	Asparagus racemosus Willd, Liliaceae, T – Saaththaavaari, E – Asparagus	Root	Nei ^{6,10} Lehyam ¹³ Decoction ¹⁰ Powder ¹⁰	

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21.	Azadirachta indica Juss., F – Meliaceae, T – Vempu, E – Margosa Tree	Gum	Pill ⁶	Astringent ^{20,22,23}
22.	Balsamodendron caudatum , F – Burseraceae, T – Kiluvai, E – Myrrh	Bark	Oil ⁶ Syrup ⁶	
23.	Bauhinia vahlii W&A, F – Leguminosae, T – Aaththi, E – Camel's foot climber	Bark	Oil ⁶ Decoction ⁶	Astringent ²²
24.	Benincasa hispida Thumb, F – Cucurbitaceae, T – Neetru poosani, E – Ash Pumpkin	Fruit	Decoction ¹⁰ Nei ¹⁰	Uterine tonic ^{20,23} – control bleeding Haemostatic ²⁰
25.	Blastonia garcini, F – Acanthaceae, T – Mosumosukkai	Leaves	Lehyam ¹³	Astringent ²⁰
26.	Bombax Malabaricum D.C., F – Malvaceae, T – Mul Elavu, Mul Elavu E – Silk Cotton	Gum	Pill ⁶ Decoction ¹⁰	Astringent ^{20,22,23} Haemostatic ^{20,23}
27.	Borassus flabelifer Linn, F – Palmae, T – Panai, E – Palmyra Palm	Root	Decoction ¹⁰	Astringent ²⁰
28.	Brassica nigra Linn, F – Cruciferae, T – Kaduku, E – Mustard	Seeds	Syrup ⁶	
29.	Cannabis sativa Linn, F – Cannabinaceae, T – Kanjaa, E – Indian Hemp	Leaves	decoction ¹³ kuzhampu ¹⁰	
30.	Canthium coromandelicum, F – Rubiaceae, T – Kaarai, E – Common honey Thorn	Bark ,fruit	Decoction ¹⁰	Astringent ²³
31.	Capparis aphylla Roth, F – Capparidaceae, T - Senkaththaari, E – Caper Plant	Root bark	Syrup ⁶	Astringent ²³
32.	Capparis zeylanica Linn , F – Capparidaceae, T – Kaatrottikkaai, E - Ceylon Caper	Root Leaves	Syrup ⁶	
33.	Careya coccinea, F – Myrtaceae, T – Kayaddai, E – Patna Oak	Bark	Syrup-ps oil-ps	
34.	Carum roxburghianum Benth.ex.Kurz., (Trachyspermum roxburghianum (Dc) Craib) F – Umbelliferae, T – Omum, E- Ajowan	Seeds	Oil ⁶ Nei ⁶ Adai ⁶ Syrup ⁶ Kuzhampu ¹⁰ Powder ⁹	Astringent ²⁰
35.	Eugenia caryophyllata Thunb F – Myrtaceae, T – Karaambu, E – Cloves	Clove	Pill ⁶ Oil ⁶ nei ⁶ Syrup ⁶ Kuzhampu ¹³	

			Powder ⁹	
36.	Cassia auriculata Linn, F – Leguminosae, T – Aavaarai, E – Tanner’s Cassia	Leaves, Flower Seeds Bark Root	Oil ⁶ Adai ⁶ Powder ^{6,10} Kuzhampu ¹³ Decoction ⁹	Astringent ^{20,22,23,26}
37.	Cassia fistula Linn, F – Leguminosae, T – Kontrai, E – Purging Cassia	Bark	Oil ⁶ Syrup ⁶ Nei ⁶	Astringent ^{20,22}
38.	Celastrus paniculatus Willd, F – Celastraceae, T – Vaaluluvai, E – Staff Tree	Seeds	Pittu ¹³	Control bleeding ²¹
39.	Chavica roxburghii, F – Piperaceae, T – Thippali moolam, E – Long Pepper root	Root	Powder ⁹	
40.	Chloroxylon swietenia F – Meliaceae, T – Muthirai, E – Satin wood	bark	Decoction ¹⁰	
41.	Chrysanthemum indicum, F – Asteraceae, T – Sevvanthi	Flower	Decoction ⁶	
42.	Cinnomomum zeylanicum Blume, F – Lauraceae, T – Karuvaa, E – Cinnamon	Bark	Syrup ⁶	Tannin + ²² Control bleeding ²¹
43.	Cinnamomum tamala Nees & Eberm F – Lauraceae, T – Elavanka Paththiri,	Bark	Pill ⁶ Oil ⁶ Nei ⁶ Kuzhampu ^{10,13} Powder ¹⁰	
44.	Cissus quadrangularis Linn, F – Vitaceae, T – Pirandai, E – Adamant Creeper	Root	Lehyam ¹³	
45.	Citrus acida Hook.F., F – Rutaceae, T – Elumichchai, E – Lime	Fruit	Kuzhampu ¹³ Nei ¹⁰	
46.	Cocus nucifera Linn, F – Palmae, T – Thennai, E – Coconut	Tender flower Tender fruit	Pill ⁶ decoction ^{6,10} Oil ⁶ Nei ¹⁰	Astringent ^{15,22,23}
47.	Coldenia procumbens Linn, F – Boraginaceae, T – Seruppadai	Whole plant	Decoction ¹³	
48.	Cordia domestica, F – Boraginaceae, T – Naruvili, E – Large Sebestens	Bark	Nei ⁶	Astringent ^{20,23,26}
49.	Coriandrum sativum Linn, F – Umbelliferae, T – Koththamalli, E – Coriander	Seeds	Oil ⁶ Syrup ⁶ Powder ¹⁰	Astringent ²⁰
50.	Crocus sativus Linn, F – Iridaceae, T – Kunkumappoo, E – Saffron	Saffron	Pill ⁶ Nei ⁶ Oil ⁶	
51.	Cucumis melo Linn, F – Cucurbitaceae, T – vellari, E – The Melon	Fruit	Nei ¹⁰	
52.	Cuminum cyminum Linn, F – Umbelliferae, T – Natseerakam, E – Cumin seed	Seeds	Oil ⁶ Kuzhampu ⁶ adai ⁶ nei ⁶ Syrup ⁶	Astringent ^{15,20,22}

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			Powder ^{9,10}	
53.	Curculigo orchoides Goertn, F – Amaryllidaceae, T – Nilappanam kizhanku, E – Black Musale	Root Kizhanku	Kuzhampu ^{6,13} Lehyam ¹³ Nei ¹⁰ Powder ¹⁰	Astringent ²⁰
54.	Curcuma angustifolia Roxb., F – Scitaminaceae, T – Kookai Kizhanku, E – Arrow root	Rhizome	Decoction ¹⁰	Astringent ^{20,23}
55.	Curcuma domestica , F – Scitaminaceae, T- Manjal, E – Turmeric	Rhizome	Oil ⁶ Syrup ⁶	Control bleeding ²²
56.	Cyperus rotundus, F – Cyperaceae, T – Muthakkaasu,Korai E – Indian Cyperus	Root Kizhanku	Nei ^{6,10} Kuzhampu ^{6,10} Decoction ¹⁰	Astringent ^{15,20,22,23}
57.	Desmostachya bipinnata Staff, F – Gramineae, T – Tharppai, E – Sacred grass	Root	Decoction ¹⁰	Astringent ^{20,23}
58.	Dineria hohenaekeri , F – Gramineae, T – Vizhalarisi	Seeds	Nei ⁶	Astringent ²⁰
59.	Eclipta alba Hasek F – Compositae, T – Kaiyaanthakarai, E - Bhangra	Leaves	Nei ⁶	Astringent ²² Control bleeding ¹⁵
60.	Elaeocarpus lanceolatus , F – Eleocarpaceae, T – Uruthiraakkam, E – Rosary Nut	Seeds	Decoction ¹⁰ Nei ¹⁰	
61.	Elettaria cardamomum Maton, F – Scitaminaceae, T – Ealam, E – Cardamom	Seeds	Oil ⁶ Nei ⁶ Kuzhampu ^{6,10,13} Syrup ⁶ Powder ^{9,10} Decoction ¹⁰	Astringent ²²
62.	Embelica ribes Burm., F – Rosaceae, T – Vaaividankam, E – Embelia	Fruit Seeds		Astringent ²²
63.	Emblica officianalis Gaertn, F – Euphorbiaceae, T – Nelli, E – Indian Gooseberry	Fruit	Nei ⁶ Kuzhampu ¹³ Powder ¹⁰ Decoction ¹⁰	Astringent ^{20,23,26}
64.	Eugenia jambolana Lambl, F – Myrtaceae, T – Naaval, E – Jambu Tree	Bark Seeds	Oil ⁶ Nei ^{6,10} Pill ⁶ Decoction ^{6,10} Powder ⁶ Pittu ¹³	Astringent ^{20,22,23,24,} Utrine tonic ²⁴ Haemostatic ^{20,24}
65.	Feronia elephantum Correa., F – Rutaceae, T – Vilaa, E – Wood apple	Gum Leaves	Pill ⁶ Nei ⁶	Astringent ^{20,22,23,24,}
66.	Ferula asafetida , F – Umbelliferae, T – Perumkaayam, E – Asafoetida	Gum-resin	Powder ⁹	
67.	Ficus benghalensis Linn, F – Moraceae, T – Aal, E – Banyan Tree	Bark Tender flower	Syrup ⁶ Oil ⁶ Decoction ^{6,9,10}	Astringent ^{20,22,23,24} Uterine tonic ²⁴ Haemostatic ^{20,24}

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		Tender leaves Prop root(vizhuthu)		
68.	Ficus glomerata Roxb., F – Moraceae, T – Aththi, E – Country Fig	Bark Tender – fruit Tender leaves	Oil ⁶ Powder ⁶ Decoction ^{6,9,10} Pittu ¹³ Nei ¹⁰	Astringent 20,22,23,24 Uterine tonic ²⁴ Haemostatic ^{20,24}
69.	Ficus religiosa Linn, F – Moraceae, T – Arasu, E – Peepul Tree	Bark Tender leaves	Oil ⁶ Syrup ⁶ Pittu ¹³ Nei ¹⁰ Decoction ^{9,10}	Astringent 20,22,23,26 Uterine tonic ²⁴ Haemostatic ^{20,24}
70.	Ficus retusa Linn, F – Moraceae, T – Iththi	Bark	Decoction ¹⁰	Astringent 20,22,23,24 Uterine tonic ²⁴ Haemostatic ^{20,24}
71.	Fluggea leucopyrus (Koen) Willd., F – Euphorbiaceae, T – Varad poolaa	Root ,leaves	Nei ⁶	Astringent ²³
72.	Foeniculum vulgare Mill, F – Umbelliferae, T – Perum seerakam, E – Fenugreek	Seeds	Nei –ps Powder ⁹	
73.	Glycyrrhiza glabra Linn, F – Leguminosae, T – athimathuram, E – Liquorice	Root	Nei ^{6,10,13} Kuzhampu ^{6,13} Syrup ⁶ Decoction ¹⁰ Powder ^{9,10}	Astringent ²² Haemostatic ²³
74.	Gossipium herbaceum Linn, F – Malvaceae, T – Paruththi, E – Cotton Plant	Leaves Seeds Root	Kuzhampu ⁶ Decoction ¹⁰	Astringent ^{20,22} Haemostatic ²³
75.	Hedyotis puberia F – Rubiaceae, T – Impooral, E – Indian der	Root	Oil ⁶	Haemostatic ^{24,25}
76.	Hemidesmus indicus R.Br., F – Asclepiadaceae, T – Nannaari, E – Indian Sarsaparilla	Root	Nei ^{6,10} Decoction ¹³	Astringent ²²
77.	Hibiscus rosasinensis Linn, F – Malvaceae, T – Sevvaraththai, E – Shoe Flower	Flower Root	Decoction ¹⁰ Nei ¹⁰	Astringent ^{20,22}
78.	Holarrhena antidysenterica Linn, F – Apocyanaceae, T – Kudasappaalai, E – Kurchee Tree	Bark	Nei ¹⁰	Astringent ^{20,22,23}
79.	Hyocymus reticulates Linn, F – Solanaceae, T – Kurosaani omum, E – Henbane seeds	Seeds	Powder ⁹	Astringent ¹⁵ Control bleeding ²¹
80.	Jasminum angustifolium Vahl., F – Oleaceae, T – Kaattu Mallikai, E – Wild Jasmine	Leaves	Decoction ¹⁰	Astringent ^{22,23}
81.	Jasminum sambac Ait., F – Oleaceae, T – Mallikai, E – Jasmine	Leaves	Decoction ⁶	
82.	Maerna arenaria , F – Capparidaceae, T – poomi sarkkarai kizhanku	Root	Lehyam ¹³	
83.	Mangifera indica Linn,	Bark	Pittu ¹³	Astringent

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	F – anacardiaceae, T – Maa, E – Mango	Tender leaves	Powder ¹⁰ Nei ¹⁰ Decoction ⁹	20,22,23,26 Haemostatic ²³
84.	Mesua ferrea Linn, F – Guttiferae, T – Sirunaakam poo, E – Iron Wood	Flower	Nei ⁶	Astringent ^{15,20,22,25} Haemostatic ²³
85.	Michelia champaca Linn, F – Magnoliaceae, T – Senpakappoo, E – Golden Champac	Flower	Oil ⁶ Pill ⁶	
86.	Moringa oleifera Lam, F – Moringaceae, T – Murunkai, E – Drum Stick	Flower Leaves	Syrup ⁶ Decoction ^{10,13} Lehyam ¹³	Astringent ²³
87.	Murraya koenigii, F – Rutaceae, T – Karuveppilai, E – Curry Leaf Tree	Bark	Powder ¹⁰	
88.	Musa sapientum Linn, F – Musaceae, T – Vaazhai, E – Banana	1. Etharai vaazhai poo (a variety of banana) 2.Karuvaazhai Kizhanku(black variety) Kathali pazham (a Variety)	1.syrup ⁶ 2. decoction ⁶ Powder ⁶ Nei ¹⁰	Astringent ^{20,23,24} Haemostatic ²⁰
89.	Myristica fragrans Houtt., F – Myristicaceae, T – saathikkaai, E – Nut Meg	Fruit Leaves	Pill ⁶ Oil ⁶ Syrup ⁶ Nei ⁶ Powder ^{10,13} Kuzhampu ¹³	Control bleeding ²¹
90.	Nardostachys jatamansi Dc F –Velerinaceae, T – Sadaa maanjil, E – Musk Root	Root	Nei ⁶	
91.	Nelumbium nuciferum Gaertn., F – Nymphaeaceae, T – Thaamarai, E – Lotus	Kizhanku (rhizome) Stamens of the flower	Nei ^{6,10} Decoction ¹⁰ Powder ¹⁰	Astringent ^{20,22,23} Haemostatic ²³
92.	Nigella sativa Linn, F – Rununculaceae, T – Karum seerakam , E – Black Cumin	Seeds	Oil ⁶ Nei ⁶	Astringent ²²
93.	Nymphaea nouchali Burm F – Nymphaeaceae, T – alli	Kizhanku (rhizome)	nei ¹⁰	Astringent ²²
94.	Nymphaea pubescens Willd., F – Nymphaeaceae, T – neithal, E – White water lily	Kizhanku	Nei ¹⁰	Astringent ²² Haemostatic ²³
95.	Nymphaea rubra F – Nymphaeaceae, T – Sevvaampal, Senkazuheer	Kizhanku	Nei ^{6,10}	Astringent ²³
96.	Odina wodier Roxb, F – Anacardiaceae , T – othiya maram, E – Rhus odina	Bark Gum	Pill ⁶ Oil ⁶ Syrup ⁶ Pittu ¹³	Uterine tonic ²² Haemostatic ^{20,23,24} Astringent ^{20,23,26}
97.	Oxalis corniculata Linn F – Oxalidaceae, T – Puliyaarai, E – Indian Sorrs	Leaves	Nei ⁶	Astringent ^{20,23}
98.	Pandanus odoratissimus	Tender - Stilt	Kuzhampu ⁶	

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	F – Pandanaceae, T – Thaazhai, E – Screw Pine	root (vizhuthu)		
99.	Papaver somniferum Linn , F – Papaveraceae, T – Abin, E – Opium	Opium	Pill ⁶ Powder ^{6,10,13} Kuzhampu ¹⁰	Haemostatic ²⁰
100.	Phaseolus mungo Linn , F – Leguminosae, T – Payaru, E – Green Gram	Seeds	Decoction ¹⁰	
101.	Phaseolus radiates , F – Leguminosae, T – Ulunthu, E – Black Gram	Seeds	Decoction ¹⁰	
102.	Phoenix sylvestris Roxb. F – Palmae, T – Preechchai, E – Date Palm	Fruit	Nei ^{6,10}	Control bleeding ²²
103.	Phyllanthus reticulates Poir., F – Euphorbiaceae, T – Pullanthi, Neerppoolaa	Root	Decoction ⁶ Syrup ⁶ Oil ⁶	Astringent ^{15,23}
104.	Piper longum Linn., F – Piperaceae, T – Thippali, E – long Pepper	Dry Unripe fruit	Oil ⁶ Nei ⁶ Kuzhampu ^{6,10} Adai ⁶ Syrup ⁶ Decoction ¹⁰ Powder ^{9,10}	Control bleeding ²²
105.	Piper nigrum Linn, F – Piperaceae, T - Milaku, E – Black Pepper	Unripe fruit	Oil ⁶ Syrup ⁶ Kuzhampu ^{6,10} Powder ⁹	Control bleeding ²²
106.	Plectranthus zeylanicus Benth., F – Labiatae, T – Eruveli,	Root	Decoction ¹⁰	
107.	Plectronia parviflora Bedd., F – Rubiaceae, T – Kaarai	Fruit Leaves	Nei ⁶	Astringent ²⁰
108.	Plumbago zeylanica Linn., F – Plumbaginaceae, E – Ceylon Lead Wort T – Kodiveli	Root	Decoction ¹⁰	Astringent ²²
109.	Premna procumbens Moon., F – Verbenaceae T – Kaattu mullai	Leaves Roots	Decoction ¹⁰	Haemostatic ²³
110.	Pterocarpus marsupium Roxb., F – Leguminosae, T – Uthira venkai, E – Indian Kino Tree	Bark Gum	Oil ⁶ Syrup ⁶	Haemostatic ^{20,24} Astringent ^{15,20,23}
111.	Pterocarpus santalinus Linn, F – Leguminosae, T – Sen santhanam, E – Red sandal Wood	wood	Oil ⁶	Astringent ²³
112.	Punica granatum Linn., F – Punicaceae, T – maathulai, E – Pomegranate	1.Fruit shell 2.tender fruit 3.Flower (from male variety)	1.powder ⁶ 2.syrup ⁶ 3.nei ⁶ Decoction ¹⁰	Astringent ^{20,22,23,26} Haemostatic ^{20,23}
113.	Quercus infectoria Olive., F – Fagaceae, T – Mayaakkaai, E – Gall Nut	Gall nut	Adai ⁶ Syrup ⁶ Nei ⁶ Kuzhampu ¹⁰	Astringent ^{20,23,24,26} Haemostatic ²⁰
114.	Rhapidophora pertusa Scholt., F – Araceae, T – Yaanai Thippali	Seeds	Nei ⁶	Control bleeding ²²
115.	Ricinus communis Linn F –Euphorbiaceae, T – aamanakku, E – Castor oil plant	Root	Decoction ¹⁰	
116.	Rubia cordifolia Linn.,	Bark	Oil ⁶	Astringent ²²

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	F – Rubiaceae, T – Sevvalli, E – Dyer’s Maddar		Syrup ⁶	
117.	Saccharum officinarum Linn., F – Gramineae, T – Karumpu, E – Sugar Cane	Stem Root	Decoction ¹⁰ Nei ¹⁰	
118.	Salacia reticulate Wight., F – Celastraceae, T – Kadaliraanji pattai,	Bark	Decoction ⁶	Astringent ^{20,22,23}
119.	Santalum album Linn F – Santalaceae, T – Santhanam E – Sandal Wood	wood	Decoction ¹⁰ Nei ¹⁰	Astringent ^{20,22}
120.	Saussurea lappa F – Compositae, T – Kottam, E – Costus	Root	Powder ⁹ Nei ⁶ Kuzhampu ⁶ Oil ⁶ Decoction ¹⁰	
121.	Scutia indica, T – Thudari, E – Root of Kites Claw	Root	Oil ⁶	
122.	Sesamum indicum Linn F – Pedaliaceae , T – Ellu, E – Sesame oil Plant	Seeds Leaves	Syrup ⁶ Powder ¹⁰ Kuzhampu ¹⁰	Astringent ²²
123.	Sida acuta Burn., F – Malvaceae, T – Malai Thaanki	Root	Nei ⁶	Uterine tonic ²⁴
124.	Sida cordifolia , F – Malvaceae, T – Kurunthotti	Root	Decoction ¹⁰	Astringent ²³
125.	Smilax chinensis F – Liliaceae, T – Parangi kizhanku, E – China Root	Root	Syrup ⁶	
	Solanum insanum F – Solanaceae, T – Sundai	Root	Nei ¹⁰	Control bleeding ²¹
126.	Strychnos potatorium Linn., F – Loganiaceae, T – Thetraa, E – Clearing Nut	Fruit Root bark	Powder ⁶ Decoction ¹⁰	Control bleeding ²²
127.	Styrax officinale F – Styraceae, T – saampiraani, E – Benzoin Tree	Gum -resin	Nei ⁶	
128.	Symplocos resemosa Roxb., F – Symplocaceae, T – Velli loththiram, E – Lodh Tree	Bark	Nei ⁶	Astringent ^{22,23} Uterine tonic ²² Haemostatic ²³
129.	Syzygium aromaticum F – Myrtaceae T – Elavankam			
130.	Tamarindus indicus Linn., F – Leguminosae, T – Puli, E - Tamarind	Outer cover of the seed	Oil ⁶ Syrup ⁶	Astringent ^{20,23}
131.	Terminalia belerica Roxb., F – Combretaceae, T – Thaantri, E – Beleric Myrobalan	Fruit	Nei ⁶ Decoction ¹⁰	Astringent ^{20,22,23}
132.	Terminalia chebula Roxb., F – Combretaceae, T – Kadukkaai, E – Ink Nut	Fruit	Pill ⁶ Nei ⁶ Syrup ⁶ Decoction ¹⁰	Astringent ^{20,22,23,26} Haemostatic ²³
133.	Tinospora cordifolia Miers., F – Menispermaceae, T – Seenthil, E – Tinospora	Stem Leaves	Nei ¹⁰ Powder ¹⁰ Decoction ¹⁰	Astringent ²²
134.	Tribulus terrestris Linn., F – Zygophyllaceae, T – Nerunjil, E – Land Caltrop	Root	Powder ¹⁰	Astringent ^{15,20} Haemostatic ²³
135.	Tricodesma indicum, F – Boraginaceae, T – Kavil	Leaves	Pittu ¹³	Control bleeding ²¹

	Thumpai,			
136.	Trigonella foenum-graecum Linn., F – Leguminosae, T – Venthayam, E – Fenugreek	Seeds	Syrup ⁶ Powder ⁹	Astringent ²⁰
137.	Ventilago maderaspatana Gaerth., F – Rhamnaceae, T – Vempaadal, E – Red Creeper	Bark	Pill ⁶ Nei ⁶	
138.	Vitex negando Linn., F – Verbenaceae, T – Karunochchi, E – Five Leaved Chast Tree	Leaves	Decoction ¹⁰	Astringent ²⁰
139.	Vitis vinifera Linn., F – Vitaceae, T – Munthirikai, E – Grape vine	Dry fruit	Decoction ¹⁰	Astringent ¹⁵
140.	Withania somnifera Linn., F – Solanaceae, T – Amukkiraa, E – Winter Cherry	Bark	Decoction ^{6,10} Decoction ¹⁰ Nei ¹⁰	Uterine tonic ²²
141.	Wrightia antidysentrica., F – Apocyanaceae, T – Vedpaalai	Bark	Nei ⁶	Astringent ^{20,23}
142.	Wrihtia angustifolia , F – Apocyanaceae, T – Paal midaanki, E – Narrow Leaved Milky Tree	Bark	Decoction ¹⁰	
143.	Zanthochymus pitorlins , F – Rutaceae, T – Pachchilai		Nei ⁶	
144.	Zingiber officinale Roxb., F – Zingiberaceae, T – Verkompu, E – Dry Ginger	Dry ginger	Pill ⁶ Oil ⁶ Decoction ⁶ Nei ^{6,10} Kuzhampu ^{6,10} Syrup ⁶ Powder ^{6,9,10}	
145.	Zizyphus jujube Lam., F – Rhamnaceae, T – Elanthai, E – Indian Plum	Bark	Pittu ^{10,13}	Astringent ^{20,22,23}

Out of 145 herbs 80(55%) have astringent action. Among them 24(17%) herbs have haemostatic action. 09(6%) herbs have uterine tonic action. 02 herbs have haemostatic action without astringent action. 02 herbs have uterine tonic action without astringent action. In addition to this 16 plants control bleeding according to Siddha Materia Medica. There fore , herbs have astringent action is used extensively in uterine haemorrhages specially for menorrhagia. uterine tonic and haemostatics also help to arrest bleeding. It should be noted that tender part of the plants like tender leaves, tender fruits, tender flower buds, and rhizome are used specifically in some plants.

Iron deficiency and iron deficiency anaemia may occur due to excessive bleeding in menorrhagia. Some of the plants in the poly herbal preparations such as Amaranthus oleraceus, Asparagus racemosus, Benincasa hispida, Cucumis melo, Eclipta alba, Emblica officianalis, Moringa oleifera, Murraya koenigii, Musa sapientum, Nelumbium nuciferum, Oxalis corniculata, Phaseolus mungo, Phaseolus radiates, Phoenix sylvestris, Sesamum indicum, Vitis vinifera are also support to give strength and iron requirements to the women suffering from mennorrhagia

IV. CONCLUSION

There is a lot of information s found in Siddha literatures about medicinal plants used for treating perumpaadu. According to Siddha Texts single and poly herbal formulation are used for Perumpaadu (Menorrhagia). This literature study revealed that 24 herbs used in single herbal preparations and 145 herbs used in poly herbal preparations. More than 50% of herbs have astringent action. More than 17% of herbs have haemostatic action and more than 6% have uterine tonic. There fore, herbs have astringent action is largely employed for treating Perumpaadu (menorrhagia). Herbal preparations may effective and safety to treat

menorrhagia except surgical condition. It is desirable to go for further investigations particularly experimental trials and clinical studies. The researcher believe that this study may give ideas to new researchers , specially researchers who are not understand Tamil language for control of perumpaadu (menorrhagia) with herbs and herbal formulation.

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