Potency of Puliyaarai Nei, A Herbal Siddha Drug in the Management of Ratha Moolam (Bleeding Piles): A Drug Review

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Abstract

Siddha is one of the Indian system of medicine which is widely practiced in Tamil Nadu, India. Siddha insists to lead a healthy life both physically and mentally. Siddhars have classified 4448 disease, based on the three humoral pathologies. Among them Ratha Moolam (Bleeding piles) is classified under Eruvai Malai noii. It is believed that symptomatic hemorrhoids affect at least 50% of the population at some time during their lives and around 5% of the population is affected at any given time. Both sexes experience approximately the same incidence of the condition with rates peaking between 25 and 65 years. The diet and deeds which influence the vatham and pitham humors is said to be major causative factors of this disease. Many formulations are indicated for Ratha moolam (Bleeding piles) in siddha literature, puliyaarai nei is one among them a herbal formulation indicated for Ratha moolam. It is learnt that each one the seven ingredients of puliyaarai nei is said to possess anti-haemorrhoidal property. Hence this article gives an insight on the efficacy of the drug puliyaarai nei bleeding piles (Internal haemorrhoids, Grade-1) based on review of various literatures and scientific studies.

Keywords: Herbal Siddha, humoral pathologies, Bleeding piles.

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INTRODUCTION

Saint Agasthiyar identified 4448 diseases and one among them is Eruvai Malai noii. Saint Yugi classified moolai noii into 21 types. The signs and symptoms of Ratha Moolam such as pain around the umbilicus, splashing of blood during defecation, weakness in the limbs, giddiness can be correlated with Bleeding Haemorrhoids mentioned in Modern science. Siddha system of medicine paves a way in the treatment of moolam at its early and later stages as well. If the early stage is not being taken care of it may lead to complications and need to be corrected with surgery. “Anila pitha thondhamalathu moolam varaathu” (Anilam-vaatham, pitha-pitham) As per saint theraiyar derangement of vatham and pitha humor due to lifestyle changes diet and deeds resulting moolam. The main vatha humor and pitha humor get affected cause in moola noii (Haemorrhoids). In moola noii, increased keelvaikanal stimulates vatha humor these totally stimulate pitha humor, constipation develops due to effects of keelvaikanal. So the symptoms like loss of appetite, emaciation, mental depression, decreased body fluids and blood volume are developed in treatment aspect in order to suppress vatha humor. Cooling agents were prescribed to suppress keelvaikanal [1].

In India approximately 40,723,288 people are reported to have hemorrhoids. 1 million new cases are reported annually, it is estimated that 50-85% of people around the world have hemorrhoids and in India 75% of the population is estimated. Current statistics suggest that almost half of people in their fifties have piles. Age is not the only factor though, and hemorrhoids can affect people of any age group or gender [2]. There are various factors responsible for hemorrhoids like constipation, sedentary life style, pregnancy, low fiber diet, obesity, and so forth. Usually, hemorrhoids develop due to increase in pressure on the veins of the pelvic and rectal region, which causes abnormal dilatation and distortion of the vascular channel, leading...
to the extravasation of blood around the perianal and anal vein, which results in rectal bleeding [5].

In the text, Anuboga vaithiya navaneetham—pakka soolai, alkali puttrai, vipparuthi, powthiram, kondamaalai, Moolam, pilavai, 21 megangal, pun, kiranadi, mega soolai, megaranam, naabi pun, arayarippu, mega vayu, thimir vaatham, nadukku vaatham. A siddha formulation “PULIYAAARI NEI” has been specifically indicated for Moola noi. The most of the ingredients of these formulation possess Stryptic, Anti-inflammatory, Anthelmintic and Laxative activities.

MATERIALS AND MINERALS [4]

THE INGREDIENTS OF PULIYAAARI NEI:

1. Puliyarai ilai (Oxalis corniculata.linn) - 20 Palam (700gms)
2. Thanneervittan Kizhangal (Asparagus racemosus.linn) - 30palam (1050gms)
3. Ponmusuttai Ver (Sidr acuta.linn) - 30palam (1050gms)
4. Nannari Ver (Hemidesmus indicus.linn) - 30palam (1050gms)
5. Kariveppilai (Murraya koenigii.linn) - 30palam (1050gms)
6. Koraikizhangal (Cyprus rotundus.linn) - 30palam (1050gms)
7. Vilamitcham Ver (Pleuranthus vettiveroides.linn) - 30palam (1050gms)
8. Vilwa Ver (Aegle marmelos.linn) - 30palam (1050gms)
9. Cow’s Ghee - 1 Padi (1.34lts)
10. Thalisa-Paththiri (Abies spectabilis.linn) - 1palam (35gm)
11. Thippili (Piper longum.linn) - 1palam (35gm)
12. Chiru-Nagappu (Mesua nagassarium.linn) - 1palam (35gm)
13. Chukku (Zingiber officinale.linn) - 1palam (35gm)
14. Vetpalai Arisi (Wrightia tinctoria.linn) - ½ Palam (18gm)
15. Karkadaka Singi (Rhus succedanea.linn) - ½ Palam (18gm)
16. Seeragam (Cuminum cyminum.linn) - ½ Palam (18gm)
17. Sanna Lavangapattai (Cinnamomum verum.linn) - ½ Palam (18gm)
18. Narukku Moolam (Root of Piper longum.linn) - ½ Palam (18gm)
19. Lavangapathiri (Cinnamomum tamala.linn) - ½ Palam (18gm)
20. Elam (Elettaria cardamomum.linn) - ½ Palam (18gm)
21. Karunjeeragam (Nigella sativa.linn) - ½ Palam (18gm)
22. Sathikkai (Myristica fragrans.linn) - 1 Varagan (4gm)
23. Chathu-Paththiri (Leaf of Myristica fragrans.linn) - 1varagan (4gm)

24. Kirambu (Syzygium aromaticum.linn) - 1varagan (4gm)
25. Athimathuram (Glyzirrhiza glabra.linn) - 1palam (35gm)
26. Naatu sarkarai - 5 Palam (175gm)
27. karungundu - 5 palam (175gm)

PURIFICATION OF INGREDIENTS OF TRIAL DRUG:
(Ref: Sigicha rathna deepam - pg no:28 to 33)

- Puliyarai ilai – clean with white cloth
- Thanneervittan kizhangal – clean with water and outer peel ans center stalk is to be removed.
- Ponmusuttai ver – cut into small pieces then dry under shadow.
- Nannari ver – cut into small pieces then dry under shadow.
- Kariveppilai & earku – clean with white cloth.
- Koraikizhangal - clean with water and outer peel and center stalk is to be removed.
- Vilamitcham ver - cut into small pieces then dry under shadow.
- Vilwa ver - cut into small pieces then dry under shadow.
- Thippili – soak in lemon juice for 3 hours and dry it.
- Chiru-nagappu - – clean and dry under shadow
- Chukku - soak in limestone water for 3 hours & outer layer will be removed.
- Vetpalai arisi - clean and dry under shadow
- Karkadaka singi - fry with almond oil.
- Seeragam - dry it under shadow & fry till it reaches golden yellow colour.
- Sanna lavangapattai - clean dry under shadow.
- Narukku moolam - remove nodes then dry under shadow.
- Lavangapathiri - clean & dry under shadow.
- Elam - clean & dry under shadow
- Karunjeeragam - dry it in sunlight & fry till it reaches golden yellow colour.
- Sathikkai - outer peel is to be removed & cut into small pieces then dry it under shadow.
- Chathi-paththiri -- clean & dry under shadow.
- Kirambu - clean & dry under shadow
- Athimathuram - wash outer peel is to be removed and cut into small pieces then dry under shadow.

METHOD OF PREPARATION:

- Step 1: Above drugs no 1-8 are coarsely powdered and taken in a wide mouth vessel.
- Step 2: 2 padi (2.6lit) of water is added to the above mixture and decoction is prepared by boiling the content till reduced to 1/8th of its quantity.
- Step 3: To the prepared decoction add cow’s ghee 1 padi (1.3lit).
- Step 4: Drugs no 10-13 each 1 palam (35gm), drugs no 14-21 each ½ palam (17.5gm), drugs no
22 – 24 each 1 varagan (4.2gm), are finely powdered and mixed with the decoction and boiled to a thick consistency.

- Step 5: Finally drugs 25 & 26 each 5 palam (175gms), drug no 27 1 palam (35gm) is finely powdered and added.

**TREATMENT**

**DRUG:** PULIYAARAI NEI  
**DOSE:** 4ml twice daily (After food)

The ingredients of Puliyaarai nei in the management of Ratha Moolam (Bleeding Piles)

<table>
<thead>
<tr>
<th>S. No</th>
<th>DRUG</th>
<th>PARTS USED</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Puliyaarai ilai (<em>Oxalis corniculata.linn</em>)</td>
<td>Leaf</td>
<td>Stomachic, Refrigerant, Astringent</td>
</tr>
<tr>
<td>2</td>
<td>Thanneervittan Kizhangu (<em>Asparagus racemosus.linn</em>)</td>
<td>Tuber</td>
<td>Nutritive, Demulcent, Galactogogue, Aphrodisiac, Anti spasmodic</td>
</tr>
<tr>
<td>3</td>
<td>Ponmusuttai Ver (<em>Sida acuta.linn</em>)</td>
<td>Root</td>
<td>Stomachic, Diaphoretic, Alterative, Tonic</td>
</tr>
<tr>
<td>4.</td>
<td>Nannari Ver (<em>Hemidescus indicus.linn</em>)</td>
<td>Root</td>
<td>Alterative, Tonic, Demulcent, Diaphoretic</td>
</tr>
<tr>
<td>5</td>
<td>Kariveppilai (<em>Murraya koenigi.linn</em>)</td>
<td>Whole plant</td>
<td>Stomachic, Febrifuge, Stomachic, Astringent</td>
</tr>
<tr>
<td>6</td>
<td>Koraikizhangu (<em>Cyprus rotundus.linn</em>)</td>
<td>Tuber</td>
<td>Astringent, Stimulant, Vermifuge, Demulcent</td>
</tr>
<tr>
<td>7</td>
<td>Vilamitcham Ver (<em>Plectranthus vettiveroides.linn</em>)</td>
<td>Root</td>
<td>Refrigerant, Anti pitha</td>
</tr>
<tr>
<td>8</td>
<td>Vilwa Ver (<em>Aegle marmelos.linn</em>)</td>
<td>Root</td>
<td>Stomachic, Laxative, Astringent, Laxative</td>
</tr>
<tr>
<td>9</td>
<td>Thalisa-Paththiri (<em>Abies spectabilis.linn</em>)</td>
<td>Aril</td>
<td>Stomachic, Carminative, Expectorant</td>
</tr>
<tr>
<td>10</td>
<td>Thippili (<em>Piper longum.linn</em>)</td>
<td>Fruit</td>
<td>Acrid, Stomachic, Carminative, Aphrodisiac, Expectorant, Digestive, Emollient, Antiseptic,</td>
</tr>
<tr>
<td>11</td>
<td>Chiru-Nagappu (<em>Mesua nagassarium.linn</em>)</td>
<td>Flower</td>
<td>Astringent, Carminative, Purgative</td>
</tr>
<tr>
<td>12</td>
<td>Chakku (<em>Zingiber officinale.linn</em>)</td>
<td>Root tuber</td>
<td>Stimulant, Carminative, Stomachic</td>
</tr>
<tr>
<td>13</td>
<td>Vetpalai Arisi (<em>Wrightia tinctoria.linn</em>)</td>
<td>Seed</td>
<td>Astringent, Aphrodisiac, Tonic</td>
</tr>
<tr>
<td>14</td>
<td>Karkadaka Singi (<em>Rhus succedanea.linn</em>)</td>
<td>Gall</td>
<td>Astringent, Stimulant, Cholagogue, Digestive</td>
</tr>
<tr>
<td>15</td>
<td>Seeragam (<em>Cuminum cyminum.linn</em>)</td>
<td>Seed</td>
<td>Carminative, Stimulant, Astringent, Stomachic</td>
</tr>
<tr>
<td>16</td>
<td>Sanna Lavangapattai(<em>Cinnamomum verum.linn</em>)</td>
<td>Bark</td>
<td>Carminative, Aphrodisiac</td>
</tr>
</tbody>
</table>
17 Narukku Moolam (Root of *Piper longum*.)  
18 Lavangapathiri (*Cinnamomum tamala*.)  
19 Elam (*Elettaria cardamomum*.)  
20 Karunjeeragam (*Nigella sativa*.)  
21 Sathikkai (*Myristica fragrans*.)  
22 Chathi-Pathiri (*Leaf of Myristica fragrans*.)  
23 Kirambu (*Syzygium aromaticum*.)  
24 Athimathuram (*Glycyrrhiza glabra*.)

<table>
<thead>
<tr>
<th>S. No</th>
<th>DRUG</th>
<th>PHARMACOLOGICAL ACTIVITY</th>
<th>PHYTOCHEMICALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Puliyarai Ilai (<em>Oxalis corniculata</em>.)</td>
<td>Wound Healing Activity, Anti-implantation and Abortifacient Activity, Anti-diabetic activity, Anti-nociceptive Activity, Anti-diarrhoeal activity, Anti-inflammatory activity, Steroidogenic activity, Hypolipidaemic activity.</td>
<td>β-sitosterol, betulin, 4-hydroxybenzoic acid, ethyl gallate, 5-hydroxy-7,8-dimethoxyflavone, 5-hydroxy-3', 4', 6, 7, 8-pentamethoxyflavone, 7, 5'-dimethoxy-3, 5, 2'-triethylxylavone, 5-hydroxy-3', 6, 7, 4'-tetramethoxyflavone, 4', 5-hydroxy-3', 6, 7-trimethoxyflavone, 5, 6, 7, 4'-tetramethoxyflavone, apigenin 7-O-β-D-glucoside and 3, 3', 5', 7-trihydroxy-4'-methoxyflavone 7-O-β-D-glucopyranoside,</td>
</tr>
<tr>
<td>2</td>
<td>Thanneervittan Kizhangu (<em>Asparagus racemosus</em>.)</td>
<td>Antitussive effect, Adaptogenic activity, Antibacterial activity, antiulcer, antioxidant, and antimicrobial activities and immunomodulatory activities. Galactogogue effect</td>
<td>Oligosprostanoside, Poly cyclic alkaloid-Aspargamine A, a cage type pyrrolizidine alkaloid, Isoflavones-8-methoxy-5', 6', 4'-triethylxylavone isoflavone-7,0-beta-D-glucopyranoside, Cyclic hydrocar bon-ramcosol, dihydrophenanterene, Furan compound-Racemofuran, Carbohydrates-Polysacharides, mucilage, Steroidal saponins, known as shatvarins. Shatvarin 1 to VI are present. Shatvarin I is the major glycoside with 3-glucose and thannane moieties attached to sarsapogenin.</td>
</tr>
<tr>
<td>3</td>
<td>Ponmusutta Ver (<em>Sida acuta</em>.)</td>
<td>Water soluble part of alcoholic extract of s.acuta showed acetylcholine spasmodic action on smooth muscles.</td>
<td>Ecdysterone, heracnelon, beta – sitosterol, acanthoside B, daucoglycoside.</td>
</tr>
<tr>
<td>4</td>
<td>Namvari Ver (<em>Hemidesmus indicus</em>.)</td>
<td>The root extract has potent anti inflammatory, anti- pyretic, anti oxidant properties, the ethan extract significantly prevented rifampicin and isoniazid induced hepatotoxicity in rats, the chloroform ethanol extracts were reported to possess good antifungal activity against aspergillus niger. Anti ulcer activity.</td>
<td>4-hydroxy 3-methoxy benzaldehyde, lupeol, dehydrocypresanyl-3-acetate, 3-hydroxy-4-methoxy benzaldehyde, hexadecenoic acid, hexatriacontane, lupeol octacosanoate, sitosterol, hemidesmin 1&amp;2, alpha-amyrin.</td>
</tr>
<tr>
<td>5</td>
<td>Kariveppilai (<em>Murraya koenigii</em>.)</td>
<td>Anti helminthic activity, analgesic activity, anti diarrheal, anti dysenteric, anti microbial, antinociceptive, blood purifier.</td>
<td>Fresh leaves contains alpha-pinene (51.7%), sabinen (10.5%), beta-pinene, betacaryophyllene(5.5%), gamma-terpinene (1.2%). Root contains bis -2-hydroxy-3-methyl carbazole, bismahamanine, from the benzene extract of roots contains mukolidine and mukoline. Alcoholic extract of stem bark shows presence of koenigne-quinoine a &amp; b.</td>
</tr>
<tr>
<td>7</td>
<td>Vilamitcham Ver (<em>Plectranthus vettiveroides</em>.)</td>
<td>Hydro alcoholic extract of the root showed in vitro anti cancer and anti oxidant activity. Anthelmintic activity.</td>
<td>Phenolic abietanoids, only 2flavonoids were identified 4,7-dimethoxy-5,6-dihydroxyflavone and chrysosplenetin,</td>
</tr>
<tr>
<td>8</td>
<td>Vilwa Ver (<em>Aegle marmelos</em>.)</td>
<td>The methanolic extract of the stem bark showed antiviral activity against human coxsackie virusB1-1-fagine, marmesin, marmin, umbelliferone, skimmianine, lupene, aegeliol, sitosterol, stigmastol,</td>
<td></td>
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<tr>
<td>Product</td>
<td>Activity</td>
<td></td>
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<td>--------------------------------</td>
<td>--------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 Talaisa-Patilhuri (Abies spectabilis.linn)</td>
<td>Hypoglycaemic and hypotensive activity, CNS depressant activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 Churu-Nagappu (Mesua nagassarium.linn)</td>
<td>Anthelmintic activity, anti bacterial activity, crude extract of meusea ferra shows cytotoxic activity, bronchodilator activity, anti inflammatory activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 Chukku (Zingiber officinale.linn)</td>
<td>Anti inflammatory, anti pyretic activity, hypouricaemic activity, anti hyperlipidaemic activity, antiemetic activity. 6-shogaol, 6-geranol, beta-phellandrene, alpha-zingiberene, ar-curcumene, beta-bisabolene, genanil glycosides, camphene, 6-gingusulfonic acid, gingerylgolipids A,B,C, hexahydrourcumin, isogingenone.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13 Vetalpalu Arisi (Wrightia tinctoria.linn)</td>
<td>Anti bacterial, anti fungal, anti microbial activity, anti malarial activity, antinoceptive activity.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 Karkadaka Singi (Rhus succedanea.linn)(9)</td>
<td>Anti bacterial ,anti oxidant, anti fungal, hypolipidemic activities, butein compound exhibited a significant anti- breast cancer activity.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 Seeragam (Cuminum cyminum.linn)</td>
<td>Anti convulantal, antioxidiant activity, anti bacterial activity, anti viral activity, anti hyperglycaemic activity, estrogenic activity, anti fertility effects, hypcholesterolaemic activity, anti oxidant activity.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 Sanna Lavangapattai (Cinnamomum tamala.linn)</td>
<td>Anti pyretic, anti fungal, analgesic nematicidal activity, anti allergic activity, benzyal benzoate.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 Narukku Moolam (Root of Piper longum.linn)</td>
<td>Insecticidal activity, acarcidial activity, anti fungal activity, anti amoebic activity, anti oxidant activity.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19 Elam (Elettaria cardamomum.linn)</td>
<td>Anti inflammatory activity, analgesic activity, and anti spasmodic activity, the essential oil showed anti bacterial and antifungal activities. The ethyl acetate-soluble shows antioxidiant property.</td>
<td></td>
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</tr>
<tr>
<td>20 Karunjeeragam (Nigella sativa.linn)</td>
<td>Anti-inflammatory, hypopharmacemic activity, anti hyperensive activity, anti parasitic , anti oxidant , anti cancer activity, anti convulstant activity, the Ethanolic extract of N.sativa exhibited antitumor activity [13].</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21 Sathnkkai (Myristica fragrans.linn)</td>
<td>The ethanolic extract of the seed exhibited hypocholesteremic, anti-atherosclerotic and platelet anti-aggregatory activities. The petroleum ether extract showed activities similar to non- steroidial anti inflammatory drugs and anti diarrehoal activity. The 2 resorcnols malabaricon B&amp;C exhibited strong anti bacterial and anti fungal activities, anti depressant activity.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22 Chathi-Pathiri (Leaf of Myristica fragrans.linn)</td>
<td>Anti bacterial and anti fungal activities, anti depressant activity.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23 Kirambu ( Syzygium aromaticum.linn)</td>
<td>Eugenol, alpha-humulene, alpha-humulene epoxide, beta carpyllhene, eugenyl acetate, proteotric acid, gentisic acid, elagic acid, syringic acid, gallic acid, ferulic acid, crategic acid, orselline -2-O-beta-D- glucopyranoside. Clove aqueous extract showed insulin like activity in vitro indicating an improvement in glucose and insulin metabolism. Sulfated polysaccharides showed antithrombic activity.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24 Athimathuram (Glyzirhiza glabra.linn)</td>
<td>Immune modulator activity, anti cancer activity, hepato protective , antiutussive and anti coagulant activity, anti oxidant [12].</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

B6, Ethanal extract showed antiproliferative effect on human tumour cell lines. 1,5-dihydroxy-6-methoxy-2-methyl anthraquinone.
CONCLUSION

Each ingredients of this drug puliyaarai nei shows a good activity related to bleeding piles. By various literature shows that the drug possess Styptic, Carminative, Anti inflammatory, Anthelmintic, Refrigerant, Demulcent, Astringent and Laxative activities So it can be concluded that the formulation will be helpful in the management of Ratha moolam (Bleeding piles).

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