



## Vrishya Property of Madhutailika Yapana Vasti- A Drug Review

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**ABSTRACT:** Sexual health is an important aspect in current scenario. It has major role in improving our quality of life. Ayurveda the holistic science can contribute in improving sexual health by correcting sexual dysfunction through the branch *vajeekarana tantra*. *Vajeekarana chikitsa* is one among the eight branches of ayurveda concerned with aphrodisiacs, virility and improving health of progeny. Sexual dysfunction is a significant disturbance in the sexual response cycle, which is not due to an underlying organic cause. The common male sexual dysfunctions are frigidity, impotence, premature ejaculation. In Ayurveda these pathologies are related to *sukra dhatu*. Vitiating of *sukra dhatu* will lead to male infertility. *Vasti* (medicated enema) is the prime treatment modality in *sukra dushti*. It is considered as half treatment among all the treatment modalities. Madhutailika vasti is a vrishya (aphrodisiac) vasti yoga. Since it is yapana it has both sodhana (purification) as well as samsamana (pacification) action. There is no strict restriction after this *vasti* and which is cost effective too. It can be done in op level also. *Eranda moola* is the main ingredient of this *vasti yoga*. Caraka explain it as potential aphrodisiac drug. This *vasti yoga* can be considered as *vrishya* by its composition.

**KEY WORDS:** *vajeekarana*, aphrodisiac therapy, sexual dysfunction, *madhutailika yapana vasti*

### INTRODUCTION

Ayurveda, comprehensive system of traditional health care concerned with maintaining health of healthy individuals (*urjaskara*) and curing the disease of patients (*rogaghna*)<sup>1</sup>. This *urjaskara chikitsa* comprises of *rasayana* and *vajikarana*. *Vajikarana tantra* is a specialized branch of ayurveda dealing with *sukra dushti* and *klaibya* (semen disorders and sexual dysfunction). Hence *Vajikarana* is the foremost line of treatment in infertility. The objective of *vajikarana chikitsa* is to enable a person to produce a son who help him to perform *dharma* (virtuous act), *artha* (wealth), *priiti* (love) and *yasas* (fame)<sup>2</sup>. The factors which make a man capable of entering in to sexual intercourse with women with stallion vigour and which makes him capable of performing excessive sexual intercourse are called *vajikarana*<sup>3</sup>. *Vajikarana* includes both *sukra janana* (spermatogenesis) as well as *sukra apyayana* (nourishment)<sup>4</sup>. *Rasayana* said to nourish all the seven *dhatu*s chronologically while *vajikarana* nourishes *sukra dhatu* over a period of time and having *vrishya* property. Three types of *vrishya* are *sukra srutikara*, *sukra vivardhaka* and *sukra vrudhi sruthikara*<sup>5</sup>. *Sukra* is the seventh *dhatu* and which is

responsible for the formation of *garbha*. It is composed of four *mahabhutas* each in one fourth part of six taste<sup>6</sup>. *Sukra* has characteristic features like quartz/alum white colour, fluidity/gel like, viscid, sweet in taste and honey odor in normal state. Some compare it with oil like appearance<sup>7</sup>. The normal quantity of *sukra* is considered as half *anjali*<sup>8</sup>. Caraka consider *vrishana*(testes) and *sepha*(penis) are the *sukravaha srotas*<sup>9</sup>. Whereas susruta replaces *sepha* (penis) by *sthana*(breasts)<sup>10</sup>. *Sukravaha srotas* get vitiated due to coitus at improper time or *yonis*(other than vaginal passage), suppression of urge, excessive coitus and also due to faulty application of *sastra*(surgery), *kshara* and *agni*(cautery)<sup>11</sup>. Anomalies in *sukra* will lead to infertility.

Infertility is a raging global health issue. It is defined as a failure to conceive within one or more years of regular unprotected coitus<sup>12</sup>. It is one of the most troublesome worry faced by a couple. In which male factor goes on increasing in recent years. And of the male factors infertility, less sperm count and motility plays a major role. In current scenario it is highly relevant to address this alarming health problem in an ayurvedic perspective as many modern assisted reproductive techniques are expensive and with many complications. Hence drugs having *vrishya* property is the treatment choice. *vasti* can be used as preparatory procedure as well as main treatment in *vajeekarana*. In *sukra* afflicted with *vata niruha* and *anuvāsana vasti* are beneficial<sup>13</sup>. So the best treatment choice can be a *vrushya vasti yoga*.

*Madhutailika* is the very popular *vasti yoga*. It contains equal amount of honey and oil. Reference of this *yoga* available in Brihatray, Ashtanga hridaya and Sarangadhara samhita. Acharya Susruta explain this *yoga* in *niruha krama chikitsa*. He included one *madanaphala* additional to other components. Sarangadhara samhita has quoted it as *vrishya*<sup>14</sup>. In addition to that in Uttara *vasti sidhi* Acharya caraka and in *sidha vasti kalpa* Acharya Vagbhata and Caraka emphasis that person become exceedingly virile due to presence of excess honey<sup>15</sup>. Being *yapana vasti*, *madhutailika vasti* is both *anuvāsana* and *niruha* in nature<sup>16</sup>. *Madhutailika yapana vasti* contains less amount of ingredients compare to other *vrishya vasti yogas*.

## MATERIALS AND METHOD

### Drugs used for *madhutailika vasti*<sup>17</sup>

*Madhutailika vasti* is prepared using the following ingredients:

Table no. 1 showing ingredients of *madhutailika vasti*

<i>Saindhava</i>	1 <i>karsha</i> (12 gm)
<i>Madhu</i>	4.25 <i>pala</i> (204 ml)
<i>dhanwantharam tailam</i>	4.25 <i>pala</i> (204 ml)
<i>Satapushpa kalka</i>	½ <i>pala</i> (24 gm )
<i>Erandamoola kwatha</i>	8.5 <i>pala</i> (408 ml)

## METHOD OF PREPARATION

Initially *madhu* and *saindhava* are to be added to the mortar and stirred well with the pestle. After mixing them together *Dhanwantharam tailam* is to be added in thin stream with continued grinding. Then perfectly grind paste of *satapushpa kalka* is to be added with continued stirring. After a uniform mixture is obtained, *erandamoola kwatha* is to be added in thin stream while continuing grinding. After all the contents were mixed properly to form a uniform mixture, it should be filtered through a clean cloth and should be made lukewarm by heating over hot water steam. Then this mixture is to be churned with the help of churner for a few minutes. This uniform

mixture is to be put in a clean and sterile thick plastic cover (*vastiputaka*) and *vastinetra* made of plastic is to be tied to it, in such a way that air will not be present in the *putaka* after plugging it with the cotton.

### TIME OF ADMINISTRATION

*Madhutailika vasti* is administered continuously for 7 days between 10.30 and 11am

### *Saindhava*

It is the most superior among all varieties of *lavana*. It is *agnideepana*, *rochana*, *vishyandi* and *avidahi*.

English name – Sodium chloride

**Table no. 2 Showing properties of *Saindhava***

<i>Rasa</i>	<i>Madhura</i>
<i>Guna</i>	<i>Sukshma, laghu, aruksha, tikshna</i>
<i>Virya</i>	<i>Sheeta</i>
<i>Vipaka</i>	<i>Madhura</i>
<i>Dosha samaka</i>	<i>Tridosha samaka</i>

### *Madhu*

It has got *chedaka*, *vishahara*, *vrana sandhana*, *ropana* properties. It has got the property of *yogavahitwa*, i.e it can be used with other *dravyas* without causing alteration to the properties of them.

Latin name – *Mel depuratum*

**Table no. 3 showing properties of *Madhu***

<i>Rasa</i>	<i>Madhura</i>
<i>Guna</i>	<i>Guru, ruksha, grahi, sookshma</i>
<i>Virya</i>	<i>Sheeta</i>
<i>Vipaka</i>	<i>Katu</i>
<i>Karma</i>	<i>Kapha pitta samaka, vrushya</i>

Chemical constituent: boron, antioxidants (helps to regulate estrogen and testosterone)

### *Dhanwantharam tailam*

Reference seen in *Susruta samhita* and *ashtanga hridaya*. *Susruta* explained it in *muda garbha chikitsa* and *Vagbhata* in *garbhavyapat chikitsa*. This yoga specifically having four ways of administration i.e, for *abhyanga, pana, vasti, bhojana*. It is indicated to broad spectrum of disease including *ksheena sukra*.

**Table no. 4 showing ingredient of *Dhanwantharam tailam* with their properties**

DRUG	SCIENTIFIC NAME	RASA	GUNA	VIRYA	VIPAKA	DOSHA KARMA
Bala <sup>18</sup>	<i>Sida cordifolia</i>	Madhura	Snigdha	Sheeta	Madura	vataPitta hara
Yava <sup>19</sup>	<i>Hordeum vulgare</i>	Kashaya, madhura	Mridu, ruksha	Sheeta	Katu	Kapha pitta hara
Kola <sup>20</sup>	<i>Zyziphus jujube</i>	Madhura	Guru	Sheeta	Madhura	vataPitta hara

Kulatha <sup>21</sup>	Dolichos biflorus	Kashayam	Laghu	Ushna	Katu	Kapha vata hara
Bilva <sup>22</sup>	Aegel marmalos	Madhura	Ruksha ,laghu	Ushna	Katu	Vata-kapha hara
Agnimanth a <sup>23</sup>	Premna mucronata	Kashaya-tikta	Ruksha ,laghu	Ushna	Katu	Kapha-vata hara
Syonaka <sup>24</sup>	Oroxylum indicum	Tikta	Laghu	Sheeta	Katu	Vata-kapha hara
Patala <sup>25</sup>	Sterospermum suaveolens	Tikta	Guru	Ushna	Katu	Kapha-vata hara
Gambhari <sup>26</sup>	Gmelina arboria	Tikta	Guru	Ushna	Katu	Vata rakta hara
Brihati <sup>27</sup>	Solanum indicum	Katu-tikta	Laghu	Ushna	Katu	Vata-kapha hara
Kantakari <sup>28</sup>	Solanum xanthocarpum	Tikta- Katu	Laghu.ruksha	Ushna	Katu	Kapha-vata hara
Gokshura <sup>29</sup>	Tribulus terrestris	Madhura	Guru,snigdha	Sheeta	Madhura	Tridosha hara
Shalaparni <sup>30</sup>	Desmodium gangetium	Madhura-tikta	Guru	Ushna	Madhura	Tridosha hara
Prisniparni <sup>31</sup>	Uraria picta	Madhura	Guru	Ushna	Madhura	Tridosha hara
Meda <sup>32</sup>	Polygonatum cirrhifolium	Madhura	Guru,snigdha	Sheeta	Madhura	Vata hara -pitta
Mahameda <sup>33</sup>	Polygonatum verticillatum	Madhura	Guru	Sheeta	Madhura	vataPitta hara
Daru <sup>34</sup>	Cedrus deodara	Tikta	Ruksha,ushna	Ushna	Katu	Kapha-pitta hara
Manjishta <sup>35</sup>	Rubia cordifolia	Madhura- tikta- kashya	Guru	Ushna	Madhura	vataPitta hara
Kakoli <sup>36</sup>	Roscoea procera	Madhura	Guru	Sheeta	Madhura	Vata pitta hara
Kshirakakoli <sup>37</sup>	Lilliem polphylum	Madhura	Guru	Sheeta	Madhura	Vata pitta hara
Candana <sup>38</sup>	Santalum album	Tikta-madura	Ruksha,laghu	Sheeta	Katu	Kapha pitta hara
Sariva <sup>39</sup>	Hemidesmus indicus	Madhura-tikta	Snigdha,guru	Sheeta	Katu	Tridosha hara
Kushta <sup>40</sup>	Saussurea lappa	Tikta-katu	Laghu	Ushna	Katu	Kapha vata hara
Tagara <sup>41</sup>	Valeriana wallichi	Katu	Laghu	Ushna	Katu	Kapha vata hara
Jivaka <sup>42</sup>	Malaxis accuminata	Madhura	Snigdha,guru	Sheeta	Madhura	Rakta pitta vata hara
Rishabhaka <sup>43</sup>	Microslylis nuscifera	Madhura	Guru	Sheeta	Madhura	Rakta pitta hara
Utpalasariva <sup>44</sup>	Parmelia perlala	Madhura	Snigdha	Sheeta	Madhura	Vata pitta hara

Shaileya <sup>45</sup>	Convolvulus pluricaulis	Tikta	Laghu	Sheeta	Katu	Kapha pitta hara
Vaca <sup>46</sup>	Acorus calamus	Katu –tikta	Ruksha	Ushna	Katu	Kapha vata hara
Aguru <sup>47</sup>	Aquilaria agallocha	Katu- tikta	Snigdha	Ushna	Katu	Kapha vata hara
Punarnava <sup>48</sup>	Boerhavia diffusa	Katu –tikta	Ruksha	Ushna	Katu	Kapha vata hara
Aswagandha <sup>49</sup>	Withania somnifera	Tikta-kashya	Snigdha ,laghu	Ushna	Katu	Kapha vata hara
Satavari <sup>50</sup>	Asperagus racemosus	Madhura-tikta	Snigdha,guru	Sheeta	Madhura	Vata pitta hara
Kshirasukla <sup>51</sup>	Ipomoea mauritiana	Madhura	Snigdha,guru	Sheeta	Madhura	Vata pitta hara
Yashti <sup>52</sup>	Glycyrrhiza glabra	Madhura	Snigdha,guru	Sheeta	Madhura	Vata pitta hara
Haritaki <sup>53</sup>	Terminalia chebula	Tikta-kashya-katu- amla-madhura	Ruksha,laghu	Ushna	Madhura	Tridosha hara
Vibhitaki <sup>54</sup>	Terminalia bellerica	Kashaya	Ruksha,laghu	Ushna	Madhura	Kapha pitta hara
Amlaka <sup>55</sup>	Emblica officianalis	Kashaya-katu-tikta- amla-madhura	Ruksha	Sheeta	Madhura	Tridosha hara
Sathahwa <sup>56</sup>	Anethum sowa	Katu	Laghu,tikshna	Ushna	Katu	Kapha vata hara
Mashaparni <sup>57</sup>	Teranus labialis	Madhura-tikta	Lagu,snigdha	Sheeta	Madhura	Vata pitta hara
Mudgaparni <sup>58</sup>	Phaseolus trilobus	Madhura	Lagu,ruksha	Sheeta	Madhura	Vata pitta hara
Ela <sup>59</sup>	Ellataria cardamomum	Katu-madhura	Lagu,ruksha	Sheeta	Madhura	Kapha vata hara
Twak <sup>60</sup>	Cinnamomum zeylanicum	Katu-tikta-madhura	Lagu,ruksha	Ushna	Katu	Kapha vata hara
Patra <sup>61</sup>	Cinnamomum cassia	Madhura	Laghu	Ushna	Katu	Kapha vata hara
Tila taila <sup>62</sup>	Sesamum indicum	Madhura	Guru,snigdha	Ushna	Madhura	Kapha vata hara
Kshira <sup>63</sup>		Madura	guru, snigdha	Seethe	Madhura	Vata-pitta hara Vajikarana

**Avayava prabhava of Dhanwantharam taila**

**1. Proportionate distribution of rasa:**

<b>Madhura</b>	<b>- 37.5%</b>
<b>Madura Tikta</b>	<b>- 14.58%</b>
<b>Katu Tikta</b>	<b>- 14.58%</b>
<b>Tikta</b>	<b>- 10.41%</b>
<b>Kashaya Tikta</b>	<b>- 6.25%</b>

<b>Kashaya</b>	<b>- 4.16%</b>
<b>Katu</b>	<b>- 4.16%</b>
<b>Kashaya Madhura</b>	<b>- 2.08%</b>
<b>Katu Madhura</b>	<b>- 2.08%</b>
<b>Kashaya Katu</b>	<b>- 2.08%</b>

**2. Proportionate distribution of *guna* :**

<b>Guru</b>	<b>- 22.91%</b>
<b>Guru snigdha</b>	<b>- 18.75%</b>
<b>Laghu Ruksha</b>	<b>- 18.75%</b>
<b>Laghu</b>	<b>- 14.58%</b>
<b>Ruksha</b>	<b>- 8.3%</b>
<b>Snigdha</b>	<b>- 6.25%</b>
<b>Laghu Snigdha</b>	<b>- 4.16%</b>
<b>Laghu Tikсна</b>	<b>- 2.08%</b>
<b>Mridu Ruksha</b>	<b>- 2.08%</b>

**3. Proportionate distribution of *virya* :**

<b>Sheeta</b>	<b>- 50%</b>
<b>Ushna</b>	<b>- 50%</b>

**4. Proportionate distribution of *vipaka*:**

<b>Madhura</b>	<b>- 52%</b>
<b>Katu</b>	<b>- 48%</b>

**5. Proportionate distribution of *dosha* :**

<b>Kapha vata hara</b>	<b>- 37.5%</b>
<b>Vata pitta hara</b>	<b>- 29.16%</b>
<b>Tridosha hara</b>	<b>- 12.5%</b>
<b>Kapha pitta hara</b>	<b>- 12.5%</b>
<b>Rakta pitta hara</b>	<b>- 2.08%</b>
<b>Vata rakta hara</b>	<b>- 2.08%</b>

*Satapushpa*<sup>64</sup>

Botanical name - *Anethum sowa*

Family - Apiaceae

Part used – Seeds, fruit

*Gana* – *Cha*: *Asthapanopaga*, *anuvasanopaga*, *dipana*

**Table no.5 showing properties of *Satapushpa***

<i>Rasa</i>	<i>Katu, tikta</i>
<i>Guna</i>	<i>Laghu, tikshna</i>
<i>Virya</i>	<i>Ushna</i>
<i>Vipaka</i>	<i>Katu</i>
<i>Doshakarma</i>	<i>Vatakaphahara</i>
<i>Karma</i>	<i>Soolaghna, vrana pachana, dipana, pachana.</i>

Chemical constituents :carvone -antioxidant

***Erandamoola***<sup>65</sup>

Botanical name : *Ricinus communis*

Family : Euphorbiaceae

Part used : Root

**Table no. 6 showing properties of *Erandamoola***

<i>Rasa</i>	<i>Madhura, tikta</i>
<i>Guna</i>	<i>Guru</i>
<i>Virya</i>	<i>Ushna</i>
<i>Vipaka</i>	<i>Madhura</i>
<i>Doshakarma</i>	<i>Tridoshahara</i>
<i>Karma</i>	<i>Dipana, vrishya, soolaghna, sothaghna, adhobhagadoshahara</i>
<i>Rogagnata</i>	<i>Vatarakta, gulma, hridroga, jirnajwara, gridrasi, pakshaghata</i>

Chemical constituents

Stigmasterol-antioxidant

Stimulate the production of testosterone,sperm and libido

**DISCUSSION**

Madhutailika yapana vasti does sodhana and samsamana action. As it is rasayana it nourishes all the seven dhatus and replenishes the body. Vasti is considered as an excellent treatment modality for adho nabhija vikaras(disease of below umbilicus). Sukra vaha sroto moola is situated in this area and hence vasti is the prime treatment modality for sukra .In Madhutailika vasti, madhu and taila are 4.25 pala each thus it is extremely brimhana. The sneha used is Dhanwanthara taila which is of ,madhura rasa, guru snigdha guna and kapha vata hara in nature and is indicated for ksheena sukra. By virtue of its ingredients , madhuthailika vasti is predominantly madhura in rasa,guru,snigdha in guna, sheeta in veerya and madhura in vipaka. Vrishya dravyas are madhura, snigdha, guru, jeevana, brimhana and able to produce pleasure to mind. The properties of madhutailika vasti is similar to attributes of vrishya. Comparing to other vrishya vastis, madhutailika is cost effective due to less number of ingredients. All the ingredients are antioxidant and which protect sperm from further oxidative damage during the entire sperm production. Root of *Ricinus communis*, the major ingredient, stimulate the production of testosterone,sperm and libido. Studies conducted in albino rats reveals honey helps to regulate estrogen and



testosterone. Honey was reported to enhance spermatogenesis in rats if given at appropriate dose and to reduce the toxic effect of cigarret smoke on spermatogenesis. It is the contributing factor of vrishya property of madhutailika yapana vasti.

## CONCLUSION

Properties of madhutailika vasti is similar to attributes of vrishya dravya, that is madhura rasa, guru – snigdha guna and brimhana. Major ingredients promotes spermatogenesis and regulate testosterone, LH and FSH. So madhutailika yapana vasti is a potent aphrodisiac. Since it is feasible to prepare and cost effective it can be made use in various infertility cases.

## REFERENCE

1. Yadavji Trikamji ,editor.Charaka Samhita of Agnivesa with the Ayurveda Dipika Commentary.Varanasi:Chaukhamba Surbharati Prakashan;2020.Chikitsa sthana 1:1/4,p.376
2. Yadavji Trikamji ,editor.Charaka Samhita of Agnivesa with the Ayurveda Dipika Commentary.Varanasi:Chaukhamba Surbharati Prakashan;2020.Chikitsa sthana 2:1/3,p.390
3. Yadavji Trikamji ,editor.Charaka Samhita of Agnivesa with the Ayurveda Dipika Commentary.Varanasi:Chaukhamba Surbharati Prakashan;2020. Chikitsa sthana 2:4/51,p.397
4. Yadavji Trikamji ,Narayan Ram Acharya,editors. Susrutha samhita of Susruta with the Nibandasangraha commentary.Varanasi:Choukhamha Krishnadas Academy;2014.Sutra sthana 1/8,p.3
5. Bhavamisra.bhavaprakasam.varanasi:chaukhamba krishnadas academy;C2008
6. Yadavji Trikamji ,editor.Charaka Samhita of Agnivesa with the Ayurveda Dipika Commentary.Varanasi:Chaukhamba Surbharati Prakashan;2020.Sarira sthana 2/15,p.339
7. Hari Sadashiva Sastri Paradakara, editor. Ashtanga hridaya of Vagbhata with the commentaries Sarvangasundara and Ayurvedarasayana.10<sup>th</sup> edition.Varanasi: Chaukhambha Surbharati Prakashan;2017 .Sarira sthana 1/17-,p.365
8. Yadavji Trikamji ,editor.Charaka Samhita of Agnivesa with the Ayurveda Dipika Commentary.Varanasi:Chaukhamba Surbharati Prakashan;2020.Sarira sthana 7/15,p.339
9. Yadavji Trikamji ,editor.Charaka Samhita of Agnivesa with the Ayurveda Dipika Commentary.Varanasi:Chaukhamba Surbharati Prakashan;2020.Vimana sthana 5/8,p.250
10. Yadavji Trikamji ,Narayan Ram Acharya,editors. Susrutha samhita of Susruta with the Nibandasangraha commentary.Varanasi:Choukhamha Krishnadas Academy;2014.Sareera sthana 9/12,p.386
11. Yadavji Trikamji ,editor.Charaka Samhita of Agnivesa with the Ayurveda Dipika Commentary. Varanasi:Chaukhamba Surbharati Prakashan;2020.Vimana sthana 5/19,p.251
12. DC Dutta. Infertility. In:Hiralal konar(ed.) DC Dutta's text book of gynecology.Newdelhi: Jaypee brothers medical publishers(p)Ltd.;C2013. P.227
13. Yadavji Trikamji ,editor.Charaka Samhita of Agnivesa with the Ayurveda Dipika Commentary. Varanasi:Chaukhamba Surbharati Prakashan;2020.Chikitsa sthana 30/149,p.640
14. Parasurama sastri, Vidyasagar, editors.Sarngadhara samhita by Pandit Sarngdharacharya with the commentary Adhamalla's Dipika and Kasirama's Gudhartha- Dipika.Varanasi:Chaukhambha orientalia;2012.Uttarakhanda 6/28,p.335.
15. Yadavji Trikamji ,editor.Charaka Samhita of Agnivesa with the Ayurveda Dipika Commentary. Varanasi:Chaukhamba Surbharati Prakashan;2020.Siddhi sthana 12/28,p.734



16. Yadavji Trikamji ,editor.Charaka Samhita of Agnivesa with the Ayurveda Dipika Commentary.Varanasi:Chaukhamba Surbharati Prakashan;2020.Siddhi sthana 12/22,p.734
17. Hari Sadashiva Sastri Paradakara, editor. Ashtanga hridaya of Vagbhata with the commentaries Sarvangasundara and Ayurvedarasayana.10<sup>th</sup> edition.Varanasi: Chaukhambha Surbharati Prakashan;2017 .Kalpa sthana 4/27-28,p.757
18. Warriar, P.K, Nambiar,V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.5;p.137
19. Warriar, P.K, Nambiar,V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.3;p.177
20. Warriar, P.K, Nambiar,V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.3;p.175
21. Warriar, P.K, Nambiar,V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.3;p.360
22. Warriar, P.K, Nambiar,V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.1;p.64
23. Warriar, P.K, Nambiar,V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.4;p.348
24. Warriar, P.K, Nambiar,V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.4;p.186
25. Warriar, P.K, Nambiar,V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.5;p.192
26. Warriar, P.K, Nambiar,V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.5;p.297
27. Warriar, P.K, Nambiar,V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.5;p.151
28. Warriar, P.K, Nambiar,V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.5;p.164
29. Warriar, P.K, Nambiar,V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.5;p.311
30. Warriar, P.K, Nambiar,V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.4;p.368
31. Warriar, P.K, Nambiar,V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.2;p.319
32. Warriar, P.K, Nambiar,V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.4;p.333
33. Warriar, P.K, Nambiar,V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.4;p.336
34. Warriar, P.K, Nambiar,V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.2;p.191
35. Warriar, P.K, Nambiar,V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.5;p.17

36. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.3;p.54
37. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.3;p.55
38. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.5;p.57
39. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.3;p.141
40. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.5;p.80
41. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.5;p.345
42. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.3;p.367
43. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.3;p.371
44. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.3;p.203
45. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.4;p.223
46. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.1;p.51
47. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.1;p.171
48. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.1;p.281
49. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.5;p.409
50. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.1;p.218
51. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.3;p.222
52. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.3;p.84
53. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.5;p.263
54. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.2;p.87
55. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.4;p.256
56. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.1;p.153

57. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.5;p.370
58. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.2;p.360
59. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.2;p.87
60. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.2;p.84
61. Yadavji Trikamji ,Narayan Ram Acharya,editors. Susrutha samhita of Susruta with the Nibandasangraha commentary. Varanasi:Choukhamha Krishnadas Academy;2014.Sutra sthana 45/112,p.205
62. Yadavji Trikamji ,editor.Charaka Samhita of Agnivesa with the Ayurveda Dipika Commentary. Varanasi:Chaukhamba Surbharati Prakashan;2020.Sutra sthana 1/107,p.22
63. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.1;p.153
64. Warriar, P.K, Nambiar, V.P.K, Ramankutty, C .Indian Medicinal Plants: A compendium of 500 species. Chennai: Orient Longman Pvt Ltd; Reprint , 2004.Vol.5;p.1