



MADANAPHALA KALPAS: A REVIEW

S Srinidhi *¹, M Kumar Ashvini², Gazala Hussain³, T Vidyavati⁴, S Vasan Satish¹

¹PG Scholar, Department of Panchakarma, Sri Dharmasthala Manjunatheshwara College of Ayurveda & Hospital, Hassan, Karnataka, India

²Professor and Head of Department of Panchakarma, Sri Dharmasthala Manjunatheshwara College of Ayurveda & Hospital, Hassan, Karnataka, India

³Associate Professor, Department of Rasashastra & Bhaishajya Kalpana, Sri Dharmasthala Manjunatheshwara College of Ayurveda & Hospital, Hassan, Karnataka, India

⁴PG Scholar, Department of Agada Tantra evum Vidhi Vaidyaka, Sri Dharmasthala Manjunatheshwara College of Ayurveda & Hospital, Hassan, Karnataka, India

*Corresponding Author Email: nidhi1956@gmail.com

DOI: 10.7897/2277-4572.07493

Received on: 01/08/18 Revised on: 19/08/18 Accepted on: 21/08/18

ABSTRACT

Vamana (emetic therapy) is one among the panchakarma chikitsa (five eliminative therapies), where the morbid doshas are expelled through the oral cavity. Many vamaka yogas (emetics) have been mentioned in Bruhatrayees (treatises of Ayurveda) in various forms of preparations. Madanaphala (emetic nut) is considered as best vamaka dravya (emetic drug). Many Madanaphala vamaka preparations like vati (pills), ghreya (inhalation), etc. have been mentioned in texts of Ayurveda. This review is an attempt to explore various yogas for vamana karma where madanaphala is used as the main ingredient.

KEYWORDS: Madanaphala, vamana, yogas

INTRODUCTION

Vamana karma (emetic therapy) is a procedure which is indicated in kapha pravrudha avastha (increased state of kapha)¹ and urdhva jatrugata rogas (diseases of head, neck, throat, eyes, shoulder). It is a process in which apakva pitta and shleshma is expelled from the body through the upward route and the best dravya for this purpose is madanaphala.² Acharya Charaka has mentioned six vamaka drugs where madanaphala is considered as the shreshta vamaka dravya because of its rasa panchaka and is anapayitvat (free from any adverse side effects) in nature.³

In Brihatrayi there is description about madanaphala in detail. Various yogas and kalpanas have been mentioned for various diseases.

Thus an attempt has been made to describe various yogas of madanaphala (knowledge of preparing emetic recipes of the emetic nut) thus showing its importance in the management of various diseases.

Description⁴

Sanskrit name: Madana phala

Botanical name: *Randia dumetorum*

Vernacular names:

Hindi name: Maina phala

English name: Emetic nut

Paryaya (Synonyms)⁵

It has various synonyms and a few are as follows: Madana- it causes mada (intoxication), Chardana- helps to induce vomiting, Pindeetaka- the fruit is spherical in shape, Shalyaka- has a lot of spines and Vishapushpaka- has flowers which are toxic in nature.

Categorization in Samhitas

Charaka Samhita

1. Vamaka dravya⁶ (emetic drug)
2. Asthanopanaga gana⁷ (adjuvants of asthanopanaga type of enema)
3. Anuvasanopaga gana⁸ (adjuvants of anuvasana type of enema)
4. Phalini dravyas⁹ (therapeutically most useful fruits)

Sushruta Samhita

1. Urdhwabhagahara¹⁰
2. Aragwadhadhi gana¹¹
3. Mushkakadi gana¹²

Vagbhata

1. Aragwadhadhi gana¹³

Varieties

Kaiyadeva Nighantu¹⁴

1. Madana (*Randia dumetorum*)
2. Shweta pindeetaka (*Randia uliginosa*)-2 types
 - a) Sukshma pindeetaka (small sized fruit)
 - b) Maha pindeetaka (large sized fruit)

Rasa Panchaka¹⁵

Rasa(taste): Madhura(sweet), Tikta(bitter)

Guna(properties): Laghu(light), Ruksha(dryness)

Veerya(potency): Ushna(hot)

Vipaka(post-digestive taste): Katu(pungent)

Karma(action): uttama chardaka(best emetic), kapha vata shamaka(subsides kapha and vata), lekha karma(scraping action)

Part Used¹⁶

Phala (fruit), beeja (seed), moola (root), twak (bark), patra (leaf) and pushpa (flower).

Madanaphala samskara¹⁷ (collection, purification and storage of emetic nut)

It should be collected between vasanta (spring) and greeshma (summer) rutus (seasons), in pushya, ashvini and mrugashira

nakshatra (when the moon is in these three constellation) during the maitreya muhurta (auspicious period of the day). The fruit should be pakva (fully matured), akana (not perforated), aharita (not greenish in colour), pandu varna (should be yellowish white in colour), akrimi (without insects), apooti (without bad smell), ajantu jagdha (not infested by parasites), ahrisva (not small in size). Such fruits should be cleaned, tied in kusha pottali (bundle of kusha grass) and gomaya lepa (application of cow dung paste) should be done. Then it is kept in either of yava (barley husk), tusha, masha, shali, kulattha or mudga rashi for eight nights. It should be then removed from rashi which will be mrudu (soft), endowed with madhvishta gandha (desirable smell like that of honey). Lepa is removed and the choorna is kept for drying. From this phalapippali (seeds) are removed and mardana (trituration) is done with ghruta (ghee), dadhi (curds), madhu (honey) and palala (oil-cake). Again, it is kept for drying which is later stored in a kalasha (jar) which is well cleaned from inside and filled up to akantastha (brim) and covered with a lid.

Table 1: Yogas according to Charaka Samhita

SL. No	Type of yoga	Number of yogas	Indications
1	Vati ¹⁸ (pills)	8	1. Balavad shleshma praseka (hypersalivation ¹⁹ / ptyalism/ sialorrhea) 2. Granthi (tumour or nodules) 3. Jwara (fever/ diseases of stomach) 4. Udara (obstinate abdominal diseases including ascites) 5. Aruchi (anorexia)
2	a) Phala pippali ksheera ²⁰ (preparation done by boiling milk) b) Ksheera yavagu ²⁰ (gruel prepared by adding milk)	1 1	1. Adhogata raktapitta (diseases where there is tendency to bleed through the downward orifices) 2. Hrudaha (burning sensation in the cardiac region)
3	Dadhi uttaraka ²⁰ (cream separated from the yogurt)	1	1. Kaphaja chardi (vomiting of kapha type) 2. Tamaka shwasa (asthma) 3. Praseka (ptyalism)
4	Ksheera sadhita sheeta santanika ²⁰ (cream separated from the milk)	1	1. Pitta prakopa (aggravation of pitta) 2. Ura, kanta, hrudaya kaphopadigdhe (chest, throat and heart are adhered with thin layer of kapha)
5	Phala pippali shruta kseerannavaneetam Utpannam ghrutam ²¹ (ghee obtained from butter collected from milk)	1	1. Kaphabhibhutagnim (suppression of digestive process by kapha) 2. Vishushya deham (dehydration of the body)
6	Ghreya yoga ²² (inhalation emetic preparation)	1	1. Sukumara (tender in nature) 2. Utklishta pitta and kapha (aggravated conditions of pitta and kapha) 3. Aushadha dveshina (aversion to taking medicine orally)
7	a) Phanita ²³ Choorna ²³ (powder)	1 1	1. Kaphasthana gata pitta (ailments caused by the migration of vitiated pitta to the habitat of kapha)

Table 2: Different Yogas

SL. No	Type of yoga	Number of yogas
1	Kashaya ²⁴ (decoction)	9
2	Varti ²⁵ (elongated pills/ Suppositories)	6
3	Avaleha ²⁶ (linctus)	20
4	Utkarika ²⁷ (pan-cakes)	20
5	Modaka ²⁷ (sweet preparation)	20
6	Aapupa ²⁸ (sweetmeat)	16
7	Shashkuli ²⁸ (type of pan-cake)	16
8	Shadava ²⁹ (sour liquid preparation)	10

Table 3: Yogas according to Sushruta Samhita

Sl. No.	Method of preparation	Indication
1	Madanaphala payasa yavagu ³⁰ (thick gruel prepared with milk cooked with madanaphala)	1. Adhobhagasruk pitta 2. Hruddaha
2	Madanaphala paya siddha dadhi→ dadhi (curd) or dadhyuttara (upper liquid part of curd) is used ³⁰	1. Kapha praseka 2. Chardi 3. Moorcha 4. Tamaka
3	Aatapa shushka madanaphala choorna (madanaphala powder is dried well in sunlight)+ jeevanti Kashaya ³⁰	1. Kaphasthanagata pitta
4	Madanaphala majja Kashaya→pippalyadi gana prativapa or madanaphala majja choorna+ nimba kashaya/ rupika (arka) kashaya ³⁰	1. Santarpana kapha vyadhi hara

Table 4: Yogas for which indications are not mentioned

Sl. No	Method of preparation
1	Atapa parishushka madana pushpa choorna (1pala)+ apamarga/sadapushpi/nimba twak kashaya+ madhu+ saindhava lavana ³⁰
2	Madana shalatu choorna (1 pala)+ bakula choorna+ ramyaka twak kashaya+ madhu+ saindhava lavana or madana shalatu siddha tila tandula yavagu ³⁰
3	Madanaphala majja choorna→ Bhavana with its own Kashaya→ given with madanaphaladi Kashaya ³⁰
4	Madanaphala paya santanika+ madhu ³⁰
5	Madanaphala paya ³⁰
6	Madanaphala swarasa/taila→prepare phanita ³⁰

Yogas according to Ashtanga Sangraha

Special indication and method of administration³¹: Diseases like shleshma jwara, gulma (abdominal tumors), pratishyaya (nasal catarrh) and antarvidradhi (internal abscesses) where the vamaana aushadhi should be administered again and again till pittagamanat (pittanta vamaana).

Table 5: Yogas according to Ashtanga Sangraha

Sl. No.	Method of preparation	Indications
1	Phala pippali choorna→Bhavana with madanaphala Kashaya+1/3 triphala choorna→ Drink kovidaryadi niryuha ³²	1. Balavat kapha praseka 2. Apachi 3. Arbuda 4. Granthi 5. Jwara 6. Udara 7. Arochaka
2	Phala majja choorna→Add jeemutaka kashaya ³³	1. Kapha sthanagata pitta
3	Phala majja siddha ksheera/yavagu ³⁴	1. Adho gata raktapitta 2. Hruddaha
4	Madanaphala pippali boiled in 4 anjali ksheera santanika ³⁵	1. Pitta prakopa 2. Tanu kaphopadigdhatta of ura, kanta and hrudaya pradesha
5	Dadhi/dhadhyuttara prepared from madanaphala pippali ksheera ³⁶	1. Kaphaja chardi 2. Praseka 3. Tamaka
6	Navaneeta obtained from madanaphala pippali ksheera(madanaphala pippali soaked in milk) and phaladi 6 kashayas(madanaphala, jeemutaka, ikswaku, dhamargava, kutaja, krutavedhana) ³⁶	1. Kaphaabhishbutagni 2. Shushka shareera
7	Phalamajja choorna+ Aragwadhadhi gana kashaya (except ghonta, nimba, bana) or somavalka and panchakola can be used→Prepare lehya ³⁷	1. Kaphaabhishbutagni 2. Shushka shareera
8	Utkarika or modaka prepared by adding phala majja choorna to Kashaya of any one of the following 22 drugs like 1) renuka 2) ela 3) shatahva 4) kustumburu 5) tagara 6) kushta 7) twak 8)choraka 9) marubaka 10) agaru 11) guggulu 12) valaka 13) shriveshtaka 14) paripelava 15) mamsi 16) shileya 17) sthauneyaka 18) surasa 19) arevata 20) puti 21) ashoka 22) rohini ³⁸	1. Kaphaabhishbutagni 2. Shushka shareera
9	Phala majja Kashaya+ prativapa of vatsakadi gana kalka or Kashaya of nimba, rupika(arka) ³⁹	1. Santarpanottha sarva shleshma vyadhi haram
10	Bhavana of phala pippali is done in madanadi kashayas for 21 times such that choorna becomes "kusumbha raja sadrusha"→sprinkled over the flowers on the same evening and next morning, then flower is plucked→subject should be given ahara,haridra krushara(rice boiled with haridra and mudga), ksheera yavagu(gruel containing more of milk) or any other ahara dravya with saindhava lavana, guda, phanita→ghreya done ⁴⁰	1. Sukumara 2. Samuchitasurabhi gandha sampadutklishhta kapha pitta (increased kapha & pitta due to over indulgence in sweets, smell) 3. Bhesaja dweshi

Table 6: Yogas for which indications are not mentioned

Sl. No	Method of preparation
1	Shashkuli yoga: Tandula of shaali and tila + swarasa/ Kashaya of madanaphala/ Kashaya of surasadi gana ⁴¹
2	Madanaphala swarasa obtained by the method of bhallataka swarasa extraction → lehya prepared → used with anna pana ⁴²

Similarly mala (garlands), gandha (perfumes), pravara, pushpa (flowers), shalatu (immature fruit) can be used as a vamaka dravya.⁴³

DISCUSSION

There is a detail explanation of madana phala kalpas in Charaka Samhita than in Sushruta Samhita, Ashtanga Hrudaya and Ashtanga Sangraha.

Charaka Samhita

Vati (tablet) are solid dosage forms of a drug prepared by moulding or compression. It takes longer time to disintegrate. The onset of action of the drug takes place after specific time duration.⁴⁴ Hence it is specially indicated in balavan roga & rogi, deerghakala rogas and increased kapha conditions.

Ksheera yavagu, phala pippali ksheera (medicated milk preparations) have swadu (sweetness), etc. dasa gunas⁴⁵ (ten qualities) which is mainly indicated for adhogata raktapitta as a pratimarga harana chikitsa. Ksheera preparations are basically prepared for the dravyas which are having tikshna guna, kashaya rasa which acts against hrudhaha and other pitta prakopa vyadhis.

Ghreyas yoga (medication meant for inhaling) is used when the subject is sukumara (subjects who cannot tolerate the intensity of the medicine), aushadha dweshi (aversion to take medicines internally). This prevents direct contact with the taste buds thus preventing taste perception through the taste receptors. Probable mode of action of the drug may be through the vascular path, lymphatic path or the olfactory pathway.⁴⁶ Nose being the gateway to shiras reaches the shrungataka marma and then performs its action.⁴⁷

Swarasa (extract/juice) is the first kalpana mentioned among the panchavidha kashaya kalpanas is guru than the other four kalpanas.⁴⁸ Being guru, it can be used in balavan (subjects who can tolerate the intensity of the medicine), kapha sthanagata pitta (pitta located in kapha sthana) conditions where there is prabhuta doshavastha and require teekshna shodhana.

Utkarika, modaka, aapupa, shashkuli, shadava may be used in sukumara (subjects who cannot tolerate the intensity of the medicine), bala (children) where mrudu alpa dosha nirharana can be achieved by such preparations.

Sushruta Samhita

Yavagu yoga: Madanaphala payasa yavagu (yavagu prepared with milk) mainly used in adhobhagasruk pitta and hrudhaha as ksheera has its action against pitta with its ten best qualities⁴⁵, thereby eliminating the dooshita pitta through urdvabhaga.

Dadhi yoga: Madanaphala siddha dadhi (curd preparations) specially used in kapha vrudhhi conditions like praseka, chardi, tamaka shwasa, peenasa where there will kapha vilayana due to its ushna veerya and amla vipaka.⁴⁹

Madanaphala choorna when kept in sunlight for drying (aatapa sushka) there will be reduction in its teekshnata. It is indicated

in kaphasthanagata pitta (pitta residing in kapha sthana i.e., here amashaya). Here since the dooshita pitta is located in amashaya, only its expulsion is to be achieved. Hence to prevent vata prakopa by atidosha nirharana (excess removal of doshas), this yoga is used by reducing its teekshna guna and administering it with jeevanti kashaya.

Pippalyadi gana⁵⁰ contains the dravyas which are having kapha shamaka, chedaka gunas. Nimba is having tikta-kashaya rasa, laghu-rooksha guna, katu vipaka, pitta-kapha shamaka.

Rupika (arka) is mentioned as vamanopaga⁵¹. It is having katu-tikta rasa, laghu-ruksha guna, katu vipaka, ushna veerya and kapha hara.⁵² Pippalyadi gana prativapa is done to madanaphala majja kashaya or madanaphala majja choorna is mixed with nimba/rupika Kashaya and administered as vamaka dravya. These two yogas containing teekshna dravyas is indicated in santarpana janya and kaphaja vyadhis.

Pushpa yoga: Here madana pushpa is considered as phala.⁵³ Hence two yogas can be considered here.

1) Madana pushpa choorna (1pala) and pratyakpushpi(apamarga)/sadapushpi(arka)/nimba twak kashaya along with madhu & saindhava lavana.

2) Madana phala choorna (1pala) and apamarga/sadapushpi/nimba twak kashaya along with madhu & saindhava lavana.

Pratyakpushpi(Apamarga) is grouped under vamanopaga dashemani⁵¹ by Acharya Charaka. It is having katu-tikta rasa, laghu-ruksha-teekshna guna, ushna veerya, katu vipaka and kapha shamaka.⁵⁴

The above yogas contain teekshna dravyas. It can be used in balavan, utklishta doshas, bahu doshavastha conditions. Based on tara tama bhava, pushpa or phala, respective yoga can be administered as vamaka dravya.

Shalatu yoga: Acharya sushruta has mentioned benefits of madanaphala in various stages from unripe fruit to ripe fruit. Shalatu is defined as ama phala.⁵⁵ Other ingredients of this yoga are bakula and ramyaka (mahanimba). Bakula is having katu-kashaya rasa, guru guna, sheeta virya, katu vipaka and kapha cheedaka.⁵⁶ Ramyaka (mahanimba) is Kashaya-katu-tikta rasa, ruksha guna, sheeta veerya, katu vipaka and kapha-pitta shamaka.⁵⁷ This yoga may be used as substitute to other phala yogas. The yoga may be used in raktapradara, shwetapradara, shwitra rogas.

Amayika prayoga: To increase the veerya of the drug, swadravya bhavana (bhavana of dravya with its own Kashaya/ swarasa, etc.) is done. Here madanaphala majja choorna is given bhavana with its Kashaya. It is administered with madanaphaladi Kashaya. This may be used as a teekshna vamaka yoga.

Phanita yoga: Phanita is said as kshudra guda/ kakavi by Acharya Dalhana.⁵⁸ Just like bhallataka taila extraction, madanaphala majja rasa or taila is extracted and heated till it becomes phanitabhibhutam (thick like phanita). It is used as lehya yoga.

Ashtanga Samgraha

Phala pippali yoga: In this yoga, bhavana of phala pippali choorna with madanaphala Kashaya further increases its potency. It is to be administered with 1/3rd of its quantity of triphala choorna and kovidaryadi niryuha is used as anupana. These act as vamanopaga⁵¹ and thus help in easy expulsion of doshas. Hence such teekshna yoga is indicated in granthi, arbuta, etc.

Choorna yoga: Jeemutaka is having katu-tikta rasa, laghu-ruksha guna, usna veerya, katu vipaka, tridoshaghna, vamaka and vishaghna.⁵⁹ Phala majja choorna is administered with jeemutakadi niryuha specially in kaphasthanagata pitta.

Santanika yoga: Four Anjali santanika is separated from ksheera. Then madanaphala pippali is boiled with santanika (cream of milk). This mrudu yoga is indicated when tanu kaphopadigdhatta of hrudaya (one of the trimarma), uras and kantha. Hence care should be taken in such subjects as injury to the vital parts may lead to life threatening conditions.

Dadhi yoga: Dadhi is having amla rasa, guru, ushna, vatajit, shlesma-pitta krut. This dadhi (curds)/dadyuttara (whey) yoga when used in kaphaja chardi, causes further kaphotklesha and facilitates the doshas for easy expulsion. Similarly in case of praseka and tamaka shwasa where the doshas are in upasthitavastha and such yogas may give immediate relief to the subject.

Navaneeta yoga: Navaneeta (butter) is vrushya, varnakrut (increases the complexion), balakrut (increases the strength), agnikrut (intensifies the digestive fire).⁶⁰ This yoga is used when there is avarana of agni by kapha (digestive fire being weak and also in krusha (emaciated) subjects. Hence when used as vamaka yoga, it removes the avarana, causes kapha chedana. Navaneeta performs agni deepana karma. The subjects who are krusha (emaciated) but vamanarha (indicated for vamana karma), this mrudu yoga is best suitable since there will dosha nirharana karma through vamana and later balavardhana (increases the strength) karma will be achieved.

Lehya yoga: i) Aragwadhadhi gana is specially indicated in kleda pradhana vyadhis like kushta, prameha, kapha pradhana rogas, teevra kandu, etc.⁶¹ ii) Somavalka (variety of khadira) is having tikta-kashaya rasa, laghu-ruksha guna, sheeta virya, katu vipaka and kushtaghna by prabhava.⁶² iii) Panchakola is katu rasa, katu vipaka, kapha-vata shamaka.⁶³ All these dravyas are kledahara, kapha shamaka. Its indications are same as that of navaneeta yoga.

Vatsakadi yoga: Vatsakadi gana⁶⁴ has katuki, madanaphala which help in apakva pitta nirharana, kapha chedana. Maricha by its pramathi guna⁶⁵ enters through the sukshma srotases and expels out the the sanchita doshas. In general, it contains all teekshna dravyas and thus indicated in kapha medo vikara, santarpanottha vyadhis (diseases due to overnourishment) and balavan subjects.

Ghreyā yoga: Ghreyā (inhalation) yoga is a vishishta vamana kalpa mentioned by all acharyas. It is a mrudu yoga which may be used in sukumaras because these subjects cannot withstand the veerya (potency), teekshnata (intensity) of the vamanoushadhi.

CONCLUSION

Vamana (emesis) is to be administered when kapha gets increased in its own stipulated place, when kapha is associated with slight pitta, if pitta is present at the site of kapha or vata present at the site of kapha or when kapha alone increases abnormally. Acharya Charaka has quoted madanaphala as a best vamaka dravya considering it as anapayitvat (safe drug). Various kalpanas has been mentioned based on specific disease. The commonly practiced yoga is madanaphala ksheera prayoga. The specificity in the type of kalpana in different vyadhis shows the effect of the drug in different forms. The intensity and mode of action is different for various kalpanas. Even though few kalpanas may require more time or procedure may be difficult to follow, when used against specific vyadhi, it definitely gives positive results. Thus, it is a very important drug showing its effect in most of the diseases. Most of the kalpanas are not in practice and hence there is a need for vyadhi pratyanka vamana Kalpana (vamaka drug preparation based on specific disease) so that the efficiency of vamana karma will be more effective.

REFERENCES

- Jadavji T, editor. Ayurveda Deepika commentary of Chakrapani Datta on Charaka Samhita of charaka, suthrasthana, Yajapurishiyam adhyaya, 25/40. Varanasi; Chaukhambha prakshan; 2007:131
- Durgadadatta Shastry, editor. Tattvadeepika hindi commentary of Durgadatta Shastry on Sharangadhara Samhita, prathamakhanda, Chaturtho adhyaya, 4/7. Varanasi; Chaukhambha Vidhyabhavan; reprint 2002:36
- Jadavji T, editor. Ayurveda Deepika commentary of Chakrapani Datta on Charaka Samhita of charaka, kalpasthana, Madanakalpa adhyaya, 1/13. Varanasi; Chaukhambha prakshan; 2007:654
- <https://easyayurveda.com/2013/06/03/madanaphala-randia-dumetorum-benefits-qualities-side-effects/24-07-2018>
- Jadavji T, editor. Ayurveda Deepika commentary of Chakrapani Datta on Charaka Samhita of charaka, Kalpasthana, Madanakalpa adhyaya, 1/27. Varanasi; Chaukhambha prakshan; 2007:656
- Jadavji T, editor. Ayurveda Deepika commentary of Chakrapani Datta on Charaka Samhita of charaka, Suthrasthana, Apamargatanduliya adhyaya, 2/7. Varanasi; Chaukhambha prakshan; 2007:24
- Jadavji T, editor. Ayurveda Deepika commentary of Chakrapani Datta on Charaka Samhita of charaka, Suthrasthana, Shadvirechanashatashritiya adhyaya, 4/13(25). Varanasi; Chaukhambha prakshan; 2007:33
- Jadavji T, editor. Ayurveda Deepika commentary of Chakrapani Datta on Charaka Samhita of charaka, Suthrasthana, Shadvirechanashatashritiya adhyaya, 4/13(26). Varanasi; Chaukhambha prakshan; 2007:33
- Jadavji T, editor. Ayurveda Deepika commentary of Chakrapani Datta on Charaka Samhita of charaka, Suthrasthana, Dhirghanjeevitiya adhyaya, 1/80-81. Varanasi; Chaukhambha prakshan; 2007:21
- Acharya JT, Susruta Samhita of Susruta Nibandha Sangraha Commentary of Sri Dalhana Acharya and Nyaya Chandrikapanjika of Sri Gayadasa Acharya. Suthrasthana; Samshodhanasamshamaneeya Adhyaya: 39/3. Varanasi. Chaukamba Sanskrit Sansthan; 2015:147
- Acharya JT, Susruta Samhita of Susruta Nibandha Sangraha Commentary of Sri Dalhana Acharya and Nyaya Chandrikapanjika of Sri Gayadasa Acharya. Suthrasthana; Dravyasangrahaneeya adhyaya: 38/7. Varanasi. Chaukamba Sanskrit Sansthan; 2015:164

11. Acharya JT, Susruta Samhita of Susruta Nibandha Sangraha Commentary of Sri Dalhana Acharya and Nyaya Chandrikapanjika of Sri iGayadasa Acharya. Suthrasthana; Dravyasangrahaneeeya adhyaya:38/20-21. Varanasi. Chaukhamba Sanskrit Sansthan; 2015;166
12. Kunti Anna Moreshwara editor. Sarvanga sundara of Arunadatta. Ashtanga Hrudaya of Vagbhata. Sutrasthana Shodhanadiganasangraha Adhyaya,15/17,18. Varanasi: Chaukhambha Sanskrit Sansthan, 2016;235.
13. Kaiyadeva;Kaiyadeva Nighantu; Acharya PV Sharma and Guruprasad Sharma; Chaukhamba Orientalia;Varanasi.1st edition;1979;603-605
14. Kaiyadeva;Kaiyadeva Nighantu; Acharya PV Sharma and Guruprasad Sharma; Chaukhamba Orientalia;Varanasi.1st edition;1979;601-602
15. Jadavji T,editor. Ayurveda Deepika commentary of Chakrapani Datta on Charaka Samhita of charaka, Vimanaasthana,Rogabhishagjeetiya adhyaya,8/135. Varanasi; Chaukhambha prakshan;2007:282
16. Jadavji T,editor. Ayurveda Deepika commentary of Chakrapani Datta on Charaka Samhita of charaka, Kalpasthana,,Madanakalpa adhyaya,1/13. Varanasi; Chaukhambha prakshan;2007:654
17. Jadavji T,editor. Ayurveda Deepika commentary of Chakrapani Datta on Charaka Samhita of charaka, Kalpasthana,Madanakalpa adhyaya,1/16. Varanasi; Chaukhambha prakshan;2007:655
18. <https://en.m.wikipedia.org/wiki/hypersalivation/24-07-2018>
19. Jadavji T,editor. Ayurveda Deepika commentary of Chakrapani Datta on Charaka Samhita of charaka, Kalpasthana, Madanakalpa adhyaya,1/17. Varanasi; Chaukhambha prakshan;2007:655
20. Jadavji T,editor. Ayurveda Deepika commentary of Chakrapani Datta on Charaka Samhita of charaka, Kalpasthana, Madanakalpa adhyaya,1/18. Varanasi; Chaukhambha prakshan;2007:655
21. Jadavji T,editor. Ayurveda Deepika commentary of Chakrapani Datta on Charaka Samhita of charaka, Kalpasthana, Madanakalpa adhyaya,1/19. Varanasi; Chaukhambha prakshan;2007:655
22. Jadavji T,editor. Ayurveda Deepika commentary of Chakrapani Datta on Charaka Samhita of charaka, Kalpasthana, Madanakalpa adhyaya,1/20. Varanasi; Chaukhambha prakshan;2007:655
23. 24.Jadavji T,editor.Ayurveda Deepika commentary of Chakrapani Datta on Charaka Samhita of charaka, Kalapsthana, Madanakalpa adhyaya, 1/14. Varanasi; Chaukhambha prakshan; 2007:654
24. Jadavji T,editor. Ayurveda Deepika commentary of Chakrapani Datta on Charaka Samhita of charaka, Kalapsthana, Madanakalpa adhyaya,1/21. Varanasi; Chaukhambha prakshan;2007:655
25. Jadavji T,editor. Ayurveda Deepika commentary of Chakrapani Datta on Charaka Samhita of charaka, Kalapsthana, Madanakalpa adhyaya, 1/22. Varanasi; Chaukhambha prakshan;2007:655
26. Jadavji T,editor. Ayurveda Deepika commentary of Chakrapani Datta on Charaka Samhita of charaka, Kalapsthana, Madanakalpa adhyaya, 1/23. Varanasi; Chaukhambha prakshan;2007:656
27. Jadavji T,editor. Ayurveda Deepika commentary of Chakrapani Datta on Charaka Samhita of charaka, Kalapsthana, Madanakalpa adhyaya,1/24-25. Varanasi; Chaukhambha prakshan;2007:656
28. Jadavji T,editor. Ayurveda Deepika commentary of Chakrapani Datta on Charaka Samhita of charaka, Kalapsthana, Madanakalpa adhyaya,1/26. Varanasi; Chaukhambha prakshan;2007:656
29. Acharya JT,Susruta Samhita of Susruta Nibandha Sangraha Commentary of Sri Dalhana Acharya and Nyaya Chandrikapanjika of Sri Gayadasa Acharya.Suthrasthana; Vamanadravyavikalpavignyaniya adhyaya: 43/3. Varanasi. Chaukhamba Sanskrit Sansthan;2015;188
30. Shivaprasad sharma editor.Shashilekha commentary of Indu on Ashtanga Sangraha of Vagbhata. 3rd edtion. Kalpasthana; Vamana kalpa Adhyaya; 1/6. Varanasi: Chowkhamba Sanskrit series; 2008:580
31. Shivaprasad sharma editor.Shashilekha commentary of Indu on Ashtanga Sangraha of Vagbhata. 3rd edtion. Kalpasthana; Vamana kalpa Adhyaya; 1/7. Varanasi: Chowkhamba Sanskrit series; 2008:580
32. Shivaprasad sharma editor.Shasilekha commentary of Indu on Ashtanga Sangraha of Vagbhata. 3rd edtion. Kalpasthana; Vamana kalpa Adhyaya; 1/8. Varanasi: Chowkhamba Sanskrit series; 2008:580
33. Shivaprasad sharma editor.Shashilekha commentary of Indu on Ashtanga Sangraha of Vagbhata. 3rd edtion. Kalpasthana; Vamana kalpa Adhyaya; 1/9. Varanasi: Chowkhamba Sanskrit series; 2008:580
34. Shivaprasad sharma editor.Shashilekha commentary of Indu on Ashtanga Sangraha of Vagbhata. 3rd edtion. Kalpasthana; Vamana kalpa Adhyaya; 1/10. Varanasi: Chowkhamba Sanskrit series; 2008:580
35. Shivaprasad sharma editor.Shashilekha commentary of Indu on Ashtanga Sangraha of Vagbhata. 3rd edtion. Kalpasthana; Vamana kalpa Adhyaya; 1/11. Varanasi: Chowkhamba Sanskrit series; 2008:581
36. 37.Shivaprasad sharma editor.Shashilekha commentary of Indu on Ashtanga Sangraha of Vagbhata. 3rd edtion. Kalpasthana; Vamana kalpa Adhyaya; 1/12. Varanasi: Chowkhamba Sanskrit series; 2008:581
37. 38.Shivaprasad sharma editor.Shashilekha commentary of Indu on Ashtanga Sangraha of Vagbhata. 3rd edtion. Kalpasthana; Vamana kalpa Adhyaya; 1/13. Varanasi: Chowkhamba Sanskrit series; 2008:581
38. Shivaprasad sharma editor.Shashilekha commentary of Indu on Ashtanga Sangraha of Vagbhata. 3rd edtion. Kalpasthana; Vamana kalpa Adhyaya; 1/16. Varanasi: Chowkhamba Sanskrit series; 2008:581
39. 40.Shivaprasad sharma editor.Shashilekha commentary of Indu on Ashtanga Sangraha of Vagbhata. 3rd edtion. Kalpasthana; Vamana kalpa Adhyaya; 1/17. Varanasi: Chowkhamba Sanskrit series; 2008:581
40. Shivaprasad sharma editor.Shashilekha commentary of Indu on Ashtanga Sangraha of Vagbhata. 3rd edtion. Kalpasthana; Vamana kalpa Adhyaya; 1/14. Varanasi: Chowkhamba Sanskrit series; 2008:581
41. Shivaprasad sharma editor.Shashilekha commentary of Indu on Ashtanga Sangraha of Vagbhata. 3rd edtion. Kalpasthana; Vamana kalpa Adhyaya; 1/15. Varanasi: Chowkhamba Sanskrit series; 2008:581
42. Shivaprasad sharma editor.Shashilekha commentary of Indu on Ashtanga Sangraha of Vagbhata. 3rd edtion. Kalpasthana; Vamana kalpa Adhyaya; 1/18. Varanasi: Chowkhamba Sanskrit series; 2008:581
43. G Hiremath Sobha.A Textbook of Bhaisajya Kalpana.2nd edition 4th reprint.Bangalore:IBH Prakashana;2008:181.
44. 45.Jadavji T, editor. Ayurveda Deepika commentary of Chakrapani Datta on Charaka Samhitha of charaka, Suthrasthana , Annapaanavidhi Adhyaya, 27/217. Varanasi; Chaukhambha prakshan; 2007:165

45. C Patil Vasant.Principles and Practice of Panchakarma. Reprint. Varanasi: Chaukhambha Publications; 2016:564,565.
46. Shivaprasad sharma editor.Shashilekha commentary of Indu on Ashtanga Sangraha of Vagbhata. 3rd edition. Suthrasthana; Nasyavidhi Adhyaya; 29/3.Varanasi: Chowkhamba Sanskrit series; 2008:223
47. Jadavji T, editor. Ayurveda Deepika commentary of Chakrapani Datta on Charaka Samhitha of charaka, Suthrasthana, Shadvirechanashatashritiya Adhyaya, 4/7. Varanasi; Chaukhambha prakshan; 2007:31
48. Jadavji T, editor. Ayurveda Deepika commentary of Chakrapani Datta on Charaka Samhitha of charaka, Suthrasthana, Annapaanavidhi Adhyaya, 27/225-227. Varanasi; Chaukhambha prakshan; 2007:165
49. Acharya J T,Susruta Samhita of Susruta Nibandha Sangraha Commentary of Sri Dalhana Acharya and Nyaya Chandrikapanjika of Sri Gayadasa Acharya.Suthrasthana; Dravyasangrahaneeya Adhyaya:38/22-23.Varanasi. Chaukamba Sanskrit Sansthan;2015;166
50. Jadavji T, editor. Ayurveda Deepika commentary of Chakrapani Datta on Charaka Samhitha of charaka, Suthrasthana, Shadvirechanashatashritiya Adhyaya, 4/13(23). Varanasi; Chaukhambha prakshan; 2007:33
51. Bhavamishra;Bhavaprakasha Nighantu;K.C.Chunekar and G.S.Pandey; Chaukhamba Orientalia; Varanasi Vol.1;9th edition;1993;303
52. Acharya J T,Susruta Samhita of Susruta Nibandha Sangraha Commentary of Sri Dalhana Acharya and Nyaya Chandrikapanjika of Sri Gayadasa Acharya. Suthrasthana; Vamanadravyavikalpavignyaniya adhyaya:43/3.Varanasi.Chaukamba Sanskrit Sansthan;2015;188
53. Bhavamishra; Bhavaprakasha Nighantu;K.C.Chunekar and G.S.Pandey; Chaukhamba Orientalia; Varanasi Vol.1;9th edition;1993;414
54. Acharya J T, Susruta Samhita of Susruta Nibandha Sangraha Commentary of Sri Dalhana Acharya and Nyaya Chandrikapanjika of Sri Gayadasa Acharya. Suthrasthana; Vamanadravyavikalpavignyaniya adhyaya:43/3. Varanasi. Chaukamba Sanskrit Sansthan;2015;187
55. Bhavamishra;Bhavaprakasha Nighantu;K.C.Chunekar and .G.S.Pandey; Chaukhamba Orientalia; Varanasi Vol.1;9th edition;1993;494
56. Bhavamishra;Bhavaprakasha Nighantu;K.C.Chunekar and .G.S.Pandey; Chaukhamba Orientalia; Varanasi Vol.1;9th edition;1993;331
57. Acharya J T,Susruta Samhita of Susruta Nibandha Sangraha Commentary of Sri Dalhana Acharya and Nyaya Chandrikapanjika of Sri Gayadasa Acharya.Suthrasthana; Dravadravyavidhi Adhyaya:45/159.Varanasi.Chaukamba Sanskrit Sansthan;2015;209
58. Bhavamishra;Bhavaprakasha Nighantu;K.C.Chunekar and G.S.Pandey; Chaukhamba Orientalia; Varanasi Vol.1;9th edition;1993;468
59. Acharya J T,Susrutha Samhita of Susruta Nibandha Sangraha Commentary of Sri Dalhana Acharya and Nyaya Chandrikapanjika of Sri Gayadasa Acharya.Suthrasthana; Dravadravyavidhi Adhyaya:45/92-93.Varanasi.Chaukamba Sanskrit Sansthan;2015;204
60. Acharya J T,Susrutha Samhita of Susruta Nibandha Sangraha Commentary of Sri Dalhana Acharya and Nyaya Chandrikapanjika of Sri Gayadasa Acharya.Suthrasthana; Dravyasangrahaneeya Adhyaya:38/6.Varanasi.Chaukamba Sanskrit Sansthan;2015;164
61. Bhavamishra; Bhavaprakasha Nighantu; K.C.Chunekar and .G.S.Pandey; Chaukhamba Orientalia; Varanasi Vol.1;9th edition;1993;525,526
62. Bhavamishra;Bhavaprakasha Nighantu;K.C.Chunekar and .G.S.Pandey; Chaukhamba Orientalia; Varanasi Vol.1;9th edition;1993;24
63. Kunti Anna Moreshwara editor. Sarvanga sundara of Arunadatta. Ashtanga Hrudaya of Vagbhata. Suthrasthana; Shodhanadiganasangraha Adhyaya,15/33,34. Varanasi: Chaukhambha Sanskrit Sansthan, 2016;238.
64. Sharangadhara;Sharangadhara Samhita;Pandit Durgadatta Shastry;Prathama khanda;4/24.Choukhambha Vidyabhavan; Varanasi; reprint 2002;39

How to cite this article:

S Srinidhi *et al.* Madanaphala kalpas: A review. J Pharm Sci Innov. 2018;7(4):121-127.
<http://dx.doi.org/10.7897/2277-4572.07493>

Source of support: Nil, Conflict of interest: None Declared

Disclaimer: JPSI is solely owned by Moksha Publishing House - A non-profit publishing house, dedicated to publish quality research, while every effort has been taken to verify the accuracy of the content published in our Journal. JPSI cannot accept any responsibility or liability for the site content and articles published. The views expressed in articles by our contributing authors are not necessarily those of JPSI editor or editorial board members.