

Management of nirupastambhita vatavyadhi – a case study

Abstract

Nirupastambhita vatavyadhi is mainly a dhatukshayanita vatavyadhi. Young age is a vivardhamana avastha of life but occurrence of this disease in young age is usually due to dhatukshaya. This may be because of changing lifestyle habits and behavioral ways which primarily lead to agnidushti, vataprakopa and ultimately vatavyadhi. Joint pain along with swelling, tenderness, crepitations and restricted movements are the cardinal features of this disease. Some patients also suffer from constitutional symptoms like anorexia, irregular bowel habits, generalized weakness, etc. A case of 18 years old male patient suffering from nirupastambhita vatavyadhi is being discussed here. *Ayurvedic* chikitsa in terms of different modalities like snehana, swedana, dashamula majjasneha basti and various *ayurvedic* preparations were used according to rugna bala, vyadhi avastha and dosha avastha. Rasayana chikitsa and physiotherapy was also advocated. Nidana parivarjana was strictly followed by the patient during the course of treatment. The holistic approach of ayurveda towards chikitsa of nirupastambhita or dhatukshayanita vatavyadhi led to satisfactory results with independent walking and free movements of bilateral knee joints of patient. There was much relief in constitutional symptoms and ESR as well as CRP values also got reduced. Thus, ayurvedic multidimensional approach is helpful in the treatment of nirupastambhita vatavyadhi.

Keywords: Nirupastambhita vatavyadhi, dhatukshaya, snehana, swedana, dashamula majjasneha basti, rasayana chikitsa

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Jasminbegam B Momin, Kulkarni PV, Gogate VE

Department of Kayachikitsa, Government Ayurved College, India

Correspondence: Jasminbegam B Momin, Department of Kayachikitsa, Government Ayurved College, India, Tel 7709691550, Email jasminmomin791992@gmail.com

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Introduction

Ayurveda ‘the science of life’ which is considered as a upaveda of Atharvaveda elaborates the importance preventive, promotive and curative aspects of health.¹ This ancient science is primarily based on fundamental theory of tridosha which are namely vata, pitta and kapha dosha.² Out of these, vata dosha brings the existence as well as destruction to all living things.³ It is the controller of all other bhavapadarthas including pitta, kapha, saptadhatu and trimalas.³ Vitiating of vata can be caused by two main reasons that is margavarodha and dhatukshaya.⁴ Hence, vatavyadhis are primarily classified into two types based on these etiological factors and these are ‘upastambhita or margavarodhajanya vatavyadhi’ and ‘nirupastambhita or dhatukshayanita vatavyadhi’.⁵ Though the common hetu of vataprakopa are responsible for the pathogenesis of both these types, upastambhita vatavyadhi has kaphaprapakopa and aamotpadaka hetu also. Nirupastambhita vatavyadhi mainly occurs in old age because of dhatukshaya⁶ but occurrence of this disease in young age is mainly due to changing lifestyle and behavioral ways like fast-food, irregular dietary habits, lack of exercise, sedentary routine work, etc. Purana of prakupita vata occurs in the rikta or empty srotasas.⁵ During this process, the walls of srotasas are stretched due to the force of vayu which lead to weakening of srotasas and vitiated vata overwhelms these weakened srotasas to produce the disease.⁵ Shleshaka kapha in the joints also get reduced in quality and quantity and sandhishaitilya is seen.⁷ The ashrayashrayi sambandha leads to asthi dhatu kshaya and kshaya leads to khavaigunya in the joints and the pathogenesis of the disease continuous.⁷ The continuous hetusevana leads to severity of the disease.

Allopathic line of treatment has its own limitations in managing this disease. It provides mainly symptomatic treatment by using

analgesics, anti-inflammatory drugs but produces troublesome side effects also.⁶ A case of 18 years old male patient suffering from dhatukshayanita vatavyadhi is being discussed here who was treated with conventional *ayurvedic* treatment. Sthanika chikitsa and basti karma along with abhyanatara snehapana, shamana aushadhis, rasayana chikitsa and physiotherapy was administered to the patient according to vyadhi avastha, rugna bala and dosha bala. Nidana parivarjana was strictly followed and this gives the excellent results in all the complaints including joint pain, swelling and limb weakness. The constitutional symptoms were also much improved and laboratory values of ESR and CRP were also significantly reduced. This holistic approach of ayurveda towards nirupastambhita vatavyadhi chikitsa gave satisfactory and encouraging results.

Aim

To study the efficacy of holistic approach of *ayurvedic* chikitsa towards nirupastambhita or dhatukshayanita vatavyadhi.

Objectives

- To study the efficacy of sthanika karmas in relieving the signs and symptoms of nirupastambhita vatavyadhi.
- To study the efficacy of dashamula majjasneha basti in the management of nirupastambhita vatavyadhi.
- To study the efficacy of various *ayurvedic* preparations in the management of nirupastambhita vatavyadhi according to vyadhi avastha, rugna bala and dosha bala.
- To study the combine effect of sthaniaka karmas, internal medicaines along with physiotherapy in the management of nirupastambhita vatavyadhi.

Material and methods

A clinical case study at our institute. *ayurvedic* treatment comprising of snehana, swedana, basti karma along with abhyantara snehapana, shamana aushadhis, rasayana chikitsa and physiotherapy was given to the patient.

Case report

A. Primary data

Patient's name – XYZ

Age – 18years

Sex – Male

Occupation – Student

B. History of past illness

- History of loose motions, loss of appetite and weakness after taking injections of calcium gluconate for the complaint of pain at left forefoot – 6months back
- History of gradual pain and swelling over right knee joint and then over left knee joint – since 6months
- History of steroids taken for the complaints of knee joint pain – 6months back
- History of weight loss (from 48kg to 33kg) within a period of 6months
- No H/O DM/HTN/ Bronchial asthma
- No H/O Blood transfusion
- No H/O Any addiction
- No H/O Any bleeding disorder
- No H/O fall/trauma/weight lifting
- No H/O Ascites/pleural effusion/knee effusion
- No H/O Any surgical illness

C. History of present illness

A 18years old male patient was apparently normal and healthy before 6 months. Later on, he was having pain at left calcaneus region which was then proceeds to the left forefoot region. For this, he was treated with symptomatic medicines and 5 injections of calcium gluconate. Because of this treatment, he was suffered from complaints of loose motion, loss of appetite and generalized weakness. Then gradually, there was pain and swelling initially over the right knee joint and then over the left joint. Also, there was severe weight loss of the patient. His weight was reduced from 48kg to 33kg within a period of 6 months. Then he was treated with symptomatic treatment and steroid therapy for all these complaints. By this time, he got relieved from the complaints of GIT but the complaints of pain and swelling over bilateral knee joints became more severe. Along with these, he was having weakness and pain at both lower limbs and difficulty in walking. In addition, he was also having complaints of fever, irregular bowel habits, anorexia and generalized weakness. Then he came to OPD of our institute where he was treated with *ayurvedic* treatment comprising of snehana, swedana, basti karma along with abhyantara snehapana, shamana aushadhis, rasayana chikitsa and physiotherapy.

D. Srotasa Parikshana

- Annavaaha srotasa – Annanabhilasha, arochaka, avipaka
- Rasavaaha srotasa – Jwaraprachiti, daurbalya, angamarda, ashradha, aasyavairasya, aruchi, karshyatva
- Medavaha srotasa - Medohani, karshyatva
- Asthivaha – Pain with swelling at bilateral knee joint, Pain and weakness of both lower limbs
- Purishavaha - Irregular bowel habits, taking long time for defecation
- Swedavaha – Aswedana, jwaraprachiti

E. Nidana Panchaka

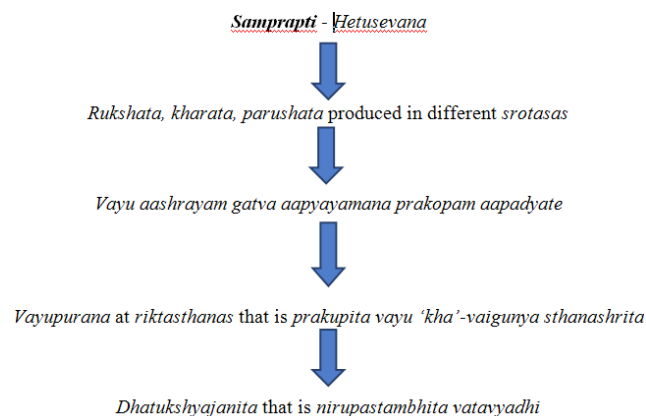
Hetu: Ati amla rasapradhana aahara, vishamashana, adhyashana, increased frequency of non-vegetarian diet, bhojanottara atyadhika jalapana, divaswapa, ratrau jagarana

Purvaraupa: Pain and swelling over right knee joint

Rupa

- Pain and swelling at bilateral knee joints
- Pain and weakness at both lower limbs
- Difficulty in walking
- Low grade temperature
- Anorexia
- Irregular bowel habits
- Generalized weakness

Upashaya: Upashayanugami



Samprapti ghataka

Dosha	Mainly vata dosha, samana, vyana, apana vayu, Pitta dosha, Pachaka pitta, Kapha dosha, Kledaka, shleshmaka kapha
Dushya	Rasa, meda, asthi dhatu
Upadhatu	Sira, kandara, snayu
Mala	Purisha, sweda

Table Continued...

Srotasa	Annavaha, asavaha, medovaha, sthivaha, purishavaha, swedavaha
Srotodushti prakara	Sanga and vimarga gamana
Udbhava sthana	Aamashaya
Abhivyakti sthana	Asthi, sandhi
Rogamarga	Madhyama marga
Vyadhi svabhava	Chirakari

Treatment

The treatment was administered to the patient by considering following criteria

- Sthanika karma and basti karma
- Abhyantara snehapana
- Shamana aushadhis
- Rasayana chikitsa
- Pathya – apathya
- Physiotherapy

Sthanika karma and basti karma

Patient was having mainly complaints of bilateral knee joint pain with swelling and pain with weakness of both lower limbs. Hence, following sthanika karmas were done in order to get relief of the symptoms:

- Sarvanga snehana with mahamasha taila
- Sarvanga nadisweda by using bala, ashvagandha, vidari and erandamula kwatha
- Shalishashtika pindasweda over kati and both lower limbs
- Bilateral janubasti with sahachara taila in the morning
- Churnapottali over bilateral knee joint by using bala and erandamula churna in the evening

The above sthanika karmas were done for the period of two months. Along with these, dashamula majjasneha basti was administered to the patient. Bastidravaya was prepared from fresh majja of goat and dashaula kwath and it was scheduled as a gap of one day after each seven days for the duration of two months.

Abhyantara snehapana: Patient was having agnimandya, aruchi, aasyavairasya. Hence, it was decided to give abhyantara Snehapana as acharya Charaka have stated that ghritha is excellent for stimulating the digestive fire. For this following ghritha were selected.

- Chitraka ghritha – along with light diet for 21days.
- Then, when there was mild agnisandhukshana, Shatpala ghritha – 20ml – in shamana matra for next 21 days
- After this, when there was ruchiutpatti, improved appetite and digestive capacity then Vidaryadi ghritha – 20ml – in rasayana kala for 2months

Shamana aushadhis

Oral *ayurvedic* preparations were selected based on their useful properties to pacify vitiated doshas and for the sampraptibhanga of the disease. These aushadhis were administered for the period of 1 month.

Rasayana chikitsa

After the administration of all karmas, snehapana and shamana aushadhis, there was samyaka kshudhapravartana and improved digestive capacity also. The intensity of joint and bilateral limb pain was also much reduced but there was still severe muscle wasting of the patient. Hence in order to achieve balya, brihana and rasayana karma, following preparations were used.

Pathya – apathya

Pathya – Aahara – Laghu, ushna aahara, Panchakola peya

Apathya – All the hetus

Physiotherapy

Patient was having severe joint pain and swelling along with bilateral weakness and pain of lower limbs. Hence physiotherapy was done for two times a day according to patient's capacity. Suitable distance walking, knee exercise, lumbar and lower limb exercise along with pranayama and mild yogasanas was conducted.

Result

The administration of foresaid *ayurvedic* chikitsa in both bahya and abhyantara ways led to improved agnisandhukshana, improved digestion and samyaka malapravartana. Complaint of mild feverishness was also much reduced. The pain and swelling of bilateral knee joints was markedly reduced. Generalized weakness and weakness of both lower limbs was also significantly reduced. This led to improvement in the quality of life of patient.

Table 1 Present complaints with duration

Sr. No	Present complaints	Duration
1	Pain and swelling at bilateral knee joints	
2	Pain and weakness at both lower limbs	
3	Difficulty in walking	
4	Low grade temperature	
5	Anorexia	All complaints
6	Irregular bowel habits	
7	Generalized weakness	

Table 2 Showing laboratory investigations done to rule out the disease

Date	Investigation	Value/Findings
24/04/2019	Stool for occult blood	Absent
25/04/2019	Mantoux test	Negative
4/5/2019	HIV I and II	Non-reactive
19/11/2018	Serum uric acid	4.03mg/dl
19/11/2018	RA factor	2.6 IU/ml
12/12/2018	ESR	150mm/hr
12/12/2018	CRP	125.9mg/L

Table Continued...

Date	Investigation	Value/Findings
5/2/2019	Thyroid profile – T3	87.02ng/dl
	T4	8.79µg/dl
	TSH	2.293µIU/ml
3/2/2019	Liver function test –	
	Total bilirubin	0.20mg/dl
	SGOT	25IU/ml
	SGPT	14IU/ml
12/12/2018	Alkaline phosphatase	146IU/ml
	Kidney function test –	
	Blood urea	22mg/dl
	Blood urea nitrogen	10.27mg/dl
23/04/2019	Serum creatinine	1mg/dl
	Widal test	Negative
	Haemoglobin	9.3gm/dl
3/2/2019	Platelet count	5,25,000/cumm
	Blood sugar level	66.7mg/dl
19/11/2018	Urine examination –	
	Appearance	Cloudy
	Albumin	++
8/4/2019	USG – abdomen and pelvis	Normal findings

Table 3 Samanya Parikshana

Sr. No	Ashtavidha bhava	Findings
1	Nadi	90/min, Sarpa gati, Regular
2	Mala	Irregular bowel habits, taking long time for defecation
3	Mutra	Samyaka pravartana
4	Jihva	Saama
5	Shabda	Spashta
6	Sparsha	Ushna, ruksha
7	Drika	Panduvarni
8	Aakriti	Krishna

Table 4 Showing shamana aushadhis administered to the patient

Sr. No	Shamana aushadhi	Matra	Sevana kala	Anupana	Properties
1	Guduchi, aamalaki, musta churna	5m Thrice a day	Before meal	Koshna jala	Agnideepana, pachana,
2	Udumbaravaleha	10ml Twice a day	After meal	Koshna jala	Doshashamana, sandhanakara
3	Cap Guggulu tiktaka ghrita	1 BD Twice a day	After meal	Koshna jala	Aruchighna, deepana, pachana, jwaraghna, twacha and mansa sthirikarana, snehaniya, sandhaniya

Table 5 Showing *ausadhis* administered in order to achieve *rasayana karma*

Sr. No	Aushadhi	Matra	Sevana kala	Anupana	Duration	Properties
1	Kushmanda rasayana	10gm Twice a day	Before meal	Koshna jala	For 20days	Madhura rasa, madhura vipaka, sheeta veerya, snigdha, brihana, balya, vatashamana, tarpana, sthairyakara
2	Cap Mahaprasarnyadi taila	1 BD Twice a day	After meal	Koshna jala	For 1month	Vatahara, snehaniya, vedananashana
3	Sukshma Laghumalini vasanta	125mg Thrice a day	After meal	Koshna jala	For 48days	Balya, deepana, pachana, rasayana, useful in dhatugata jwara, jeernajwara

Table 6 Knee examination

Signs and symptoms	Before treatment		After treatment	
	Right knee	Left knee	Right knee	Left knee
Pain	++	++	-	-
Swelling	++	++	-	-
Temperature	++	++	-	-
Tenderness	++	++	-	-
Crepitations	++	++	-	-

Table 7 Angles of both knee joints

Angles	Before treatment		After treatment	
	Right knee	Left knee	Right knee	Left knee
Angle of extension	180°	150°	180°	180°
Angle of flexion	40°	40°	0	0

Table 8 Muscle power

Limb	Before Treatment		After Treatment	
	Right	Left	Right	Left
Upper limbs	3	3	4+	4+
Lower limbs	1	1	4	4

Table 9 The following blood investigations shows significant reduction in values as

Investigations	Before treatment	After treatment
ESR	150mm/hr	50mm/hr
CRP	125.9mg/L	12.59mg/L

Table 10 Showing treatment given at the time of discharge of patient

Sr. No.	Aushadhis	Matra	Sevana Kala	Anupana	Duration	Properties
1.	Cap Mishraka Sneha	1 BD Twice a day	Before meal	Koshna jala	For 15days	Snehayukta virechana useful vibandha produced mainly due to vata dosha
2.	Cap Ksheerabala taila	1 BD Twice a day	After meal	Koshna jala	For 15days	Balya, brihaniya, vrishya, snehaniya
3.	Tab Vasanatkusumakara rasa	1 BD Twice a day	After meal	Koshna jala	For 1month	Balya, vrishya, pushtikara useful in kshaya roga

Table Continued...

Sr. No.	Aushadhis	Matra	Sevana Kala	Anupana	Duration	Properties
4.	<i>Dahtupaushatika churna</i>	3 gm Twice a day	After meal	<i>Koshna jala</i>	For 1 month	Dhatuposhana, balya, sandhaniya
5.	<i>Takrarishtha + Amrutarishtha</i>	30ml Twice a day	After meal	<i>Koshna jala</i>	For 1 month	Agnideepana, ruchikara, shothagna, kapha-vatanulomaka
6.	<i>Sukshma Suvarnamalini Vasanta</i>	125mg Thrice a day	After meal	<i>Koshna jala</i>	For 1 month	Balya, rasayana, deepana, pachana, jeernajwarahara, Kshayaghna, dhatuposhana

Discussion

- Nirupastambhita vatavyadhi is primarily dhatukshayanita vatavyadhi comprising of joint pain swelling along with associated symptoms like anorexia, muscle wasting, disturbed bowel habits, generalized weakness, etc. There was paratantra doshaprakopa for which *ayurvedic* line of treatment was applied.
- Sthanika karmas** – Acharya Charaka have stated that sneha dryavyas or snehana karma should be used in all possible ways as there is extreme level of kharata, rukshata, parushata developed at different srotasas.⁸ Hence bahya and abhyantara snehana was decided to be done in this case. Along with this, different kinds of swedana in the form of sarvanga nadisweda, shalishashtika pindasweda, janubasti, churnapottali were used at different times of day. For these, all the vatahara, balya, brihana dravyas were selected having snehana property as well in order to reduce the kharata, rukshata, parushata of srotasas, to reduce the intensity of pain and swelling, to administer the adequate quantity of snehana inside the body and to nourish the muscles strength.
- Basti** – Acharya Charaka have stated that basti is the prime treatment for vatadosha dominant vyadhis.⁹ In this case, there is intense pain and swelling along with disturbed aama-pakvashaya. Hence to correct this, dashamula majjasneha basti was administered. Dashamulas are the utama vatahara dravyas and basti prepared by using dashamula kwatha and freshly prepared majja of goat is used which is useful in asthi-sandhigata vata as well as in koshtha gata vata.¹⁰ Charakacharya have explained that it is ‘amrutopamam’ for the patients having kshina majja, shukra and oja and has properties like balya, brihana and pushtikara.¹⁰
- Patient was having anorexia and his digestive capacity was also too weak. Acharya Charaka have explained that ghrita is excellent for stimulating the digestive fire.¹¹ According to him, jatharagni stimulated by using fuel in the form of ghrita cannot be suppressed even by guru aahara or heavy food.¹¹ It is also explained that if the gastric fire gets suppressed because of the affliction by diseases, then the patient should be given medicated ghee which stimulates the power of digestion.¹² Hence, initially we selected chitraka ghrita and mixed it with light diet as it is having katu rasa, katu vipaka and ushna veerya in order to stimulate the jatharagni. When there was mild agnisandhukshana, we decided to administer shatpala ghrita having panchakola, ksheera and ghrita as main ingredients. This stimulates the digestive capacity of the patient, produces ruchi, kshudha and hence after this, it was decided to administer vidaryadi ghrita in shamana matra. This matra is useful in patients having avara bala and it is snehaniya, brihaniya, vrishya, balya, helps the digestion and long lasting inside the body.¹³
- Sahmana aushadhis** - When proper functioning of jatharagni got started, shamana aushadhis were selected having mainly deepaniya, pachaniya, snehaniya and sandhaniya properties.
- Rasayana chikitsa** - By the virtue of administration of all karmas, snehapana and shamana aushadhis, there was samyaka kshudhapravartana, improved digestive capacity and improved bowel habits also. The complaints of joint pain and swelling were also much reduced but muscle wasting was still there. Hence rasayana chikitsa was given in order to stabilize the dhatu and to nourish the muscle strength.
- Nidana parivarjana and physiotherapy: Nidana parivarjana was strictly followed by the patient himself and his relatives and at the same time physiotherapy in the form of suitable distance walking, knee exercise, lumbar and lower limb exercise along with pranayama and mild yogasanas was conducted. This gave strength to weakened muscles and proper functioning of limbs and joints was achieved.
- ESR and CRP values which are increased in most of the inflammatory conditions were reduced. That means process of inflammation was also cut-off by the application of this *ayurvedic* treatment.
- There was significant relief in the complaints of anorexia, feverishness, irregular bowel habits. Digestive capacity of patient was much improved and patient attained ruchitpatti, samyaka kshudha pravartana and samyaka mala pravartana. Pain and swelling of both knee joints was also reduced. He became able to walk independently along with full flexion and extension of knee joints. There was improvement in muscle power of limbs also.
- Thus, there was no worsening of signs and symptoms of the patient with *ayurvedic* treatment. Patient was discharged with proper instructions of internal medicines and physiotherapy and advised for the follow-up to repeat the karma if necessary after a gap of one month.
- Treatment on discharge.
- The above treatment was done for two months and by assessing the lakshanas, following *ayurvedic* preparations were advised to the patient at the time of discharge.

Conclusion

Nirupastambhita vatavyadhi is a dhatukshayanita vatavyadhi. Acharya Charaka have explained in detail about the different treatment modalities like snehapana in all possible bahya and

abhyantara ways and various types of swedana vidhis. These were used here which gave excellent results to the patient. Along with these, shamana aushadhis and rasayana chikitsa were administered. At the same time, nidana parivarjana was strictly obeyed by the patient himself and his relatives. Physiotherapy also helped a lot to minimize the complaints of joint pain and limb weakness. Patient was having marked improvement in agnisandhukshana, digestive capacity and bowel habits were also markedly improved. The ESR and CRP values got much reduced and show significant difference after the treatment that means inflammation also got reduced. Patient became able to walk independently with full flexion and extension of bilateral knee joints. In this way, there was no worsening of the complaints of the patients. The results were satisfactory and encouraging and this led to improvement in the quality of life of patient. Thus, by using *ayurvedic* treatment, the udbhava sthana of vyadhi that is dushta aamashaya was cured and abhivyakti sthana of lakshanas that is lakshanas at asthi and sandhi were improved. This *ayurvedic* multidimensional approach is helpful in the treatment of nirupastambhita vatavyadhi.

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Conflicts of interest

There is no conflict of interest.

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References

- Patil A, Parashurami SP. Clinical study of rasnapanchaka kwath in sandhigata vata. *IAMJ*. 2016;4(2):106–115.
- Yadavji T. *Charaka Samhita of Agnivesha, Sutra Sthana*. Ch-1, Ver 57, 3rd edn. Varanasi, India: Chaukhambha Surbharati Prakashana; 2017. 16 p.
- Yadavji T. *Charaka Samhita of Agnivesha, Sutra Sthana*. Ch-12, Ver 8, 3rd edn. Varanasi: Chaukhambha Surbharati Prakashana; 2017. 79-80 p.
- Yadavji T. *Charaka Samhita of Agnivesha, Chikitsa Sthana*. Ch-28, Ver. 59, 3rd edn. Varanasi: Chaukhambha Surbharati Prakashana; 2017. 619 p.
- Wale S, Pnadhare S. Concept of dhatukshayajanya and margavarodhajanya vatavyadhi. *IAMJ*. 2018;6(2):403–408.
- Akhtar B, Mahto R, Shukla V. Clinical study on sandhigata vata w.s.r. to osteoarthritis and its management by panchatikta ghrita guggulu. *Ayu*. 2010;31(1):53-57.
- Adsare A, Yaatkar P. Practical approach to vatavyadhi samprapti and chikitsa. *WJPMR*. 2020;6(3):78–80.
- Yadavji T. *Charaka Samhita of Agnivesha, Chikitsa Sthana*. Ch-28, Ver 75-82, 3rd edn. Varanasi: Chaukhambha Surbharati Prakashana; 2017. 620 p.
- Yadavji T. *Charaka Samhita of Agnivesha, Sutra Sthana*. Ch-25, Ver 40, 3rd edn. Varanasi: Chaukhambha Surbharati Prakashana; 2017. 131 p.
- Yadavji T. *Charaka Samhita of Agnivesha, Chikitsa Sthana*. Ch-28, Ver 124-128, 3rd edn. Varanasi: Chaukhambha Surbharati Prakashana; 2017. 622 p.
- Yadavji T. *Charaka Samhita of Agnivesha, Chikitsa Sthana*. Ch-15, Ver 201, 3rd edn. Varanasi: Chaukhambha Surbharati Prakashana; 2017. 524 p.
- Yadavji T. *Charaka Samhita of Agnivesha, Chikitsa Sthana*. Ch-15, Ver 208, 3rd edn. Varanasi: Chaukhambha Surbharati Prakashana; 2017. 524 p.
- Yadavji T. *Charaka Samhita of Agnivesha, Sutra Sthana*. Ch-13, Ver 39-40, 3rd edn. Varanasi: Chaukhambha Surbharati Prakashana; 2017. 84 p.