WORLD JOURNAL OF PHARMACEUTICAL RESEARCH

SJIF Impact Factor 8.084

Volume 12, Issue 2, 525-537.

Review Article

ISSN 2277-7105

DRAVYA PRAYOGA IN VISARPA

Anoosha Adiga^{1*}, Nisarga K. S.², Pradeep³ and Prakash L. Hegde⁴

^{1,2}PG Scholars Department of Dravyaguna.

³Associate Professor and Head, Department of Dravyaguna.

⁴Professor, Department of Dravyaguna.

Article Received on 27 November 2022,

Revised on 17 Dec. 2022. Accepted on 08 Jan. 2023

DOI: 10.20959/wjpr20232-26949

*Corresponding Author Anoosha Adiga

PG Scholars Department of Dravyaguna.

ABSTRACT

Dravyaguna is a unique fundamental branch in ayurveda which deals with different dravyas along with their application in healthy and diseased conditions. Herbs are the major sources of medicine for different types of diseases. Classical text describes the prayoga of these dravyas based on the disease conditions. Visarpa is a disease manifested due to the involvement of Pittapradhana tridosha dusti. As this disease is of acute onset and immediate spread, it should be treated in earlier stage only. It is classified into different types based on predominant dosha involved. The treatment principle includes

shodhana of vitiated dosha followed by different types of local applications. The clinical features of visarpa correlates with that of Herpes zoster which is characterized by discrete vesicles and burning discomfort in the affected dermatomes. Antiviral therapy is the main line of management in this condition. The present work tries to compile different types of dravvya prayoga internally and externally as explained by Brahatrayi, Laghutrayi and other classical literatures along with online articles related to clinical study on Visarpa.

KEYWORDS: Ayurveda, Visarpa, Herpes zoster, Virechana, Raktamokshana.

INTRODUCTION

Ayurveda classifies the diseases based on the Srotas. Visarpa is one of the diseases caused because of the vitiation of Raktavaha Srotas mainly involving Pittadosha and Sapta dushyas. The name Visarpa is due to its acute onset and rapid spread in different directions all over the body. It is called as a daruna Vyadhi and it spreads like Asheevisha (Cobra venom).^[1] Acharya Charaka and Sushruta had explained 7 types and 5 types of Visarpa respectively. The manifestation of Shopha (swelling) along with Sphota (Blisters) are the main symptoms

of *Visarpa*.^[2] It can be corelated to Herpes zoster Infection. Herpes zoster is the result of reactivation of the Varicella zoster virus that has lain dormant in a nerve root ganglion following Chickenpox earlier in life.^[3] Systematically conducted literature search yielded 27 studies, published between January 2011 and May 2020, reporting 3124 HZ clinical cases, with high proportions in older adults (> 50 years of age: 15.0 to 81.3%.). Thoracic dermatome was consistently reported as the most frequent site affected by HZ (38.9 to 71.0%). Post-herpetic neuralgia and secondary bacterial infections were the two most frequent complications (10.2 to 54.7% and 3.5 to 21.0% respectively).^[4] The treatment of *Visarpa* mainly aims at normalizing vitiated *pitta*. It is planned based on the site of lesion. In this disease treatment, more emphasis is given to external applications along with internal medications.

Nidana^[5](Etiology)

Visarpa is a disease mainly caused because of the vitiation of Raktavaha Srotas. Mainly Rakta pitta prakopaka ahara vihara bhava will cause Visarpa. It is also a disease caused because of Chardi vegadharana. [6]

Aharaja Nidana	Viharaja Nidana	Others
Ati Amla Lavana Ahara Sevana		Ajeerna Ashana (Taking the
(Excessive intake of Sour and salt	Diva swapna (Day sleep)	food prior to the digestion of
food)		previous meal)
Shaka Harita sevana (Intake of leafy	Atyadana (Exposure to	Adhyashana (Taking the food
vegetables in excess)	sunrays in excess)	immediately after the meal)
Dadhi (curd)- Amla (Sour)- Mastu		
(The liquid portion in the upper part		
of the curd)- Shukta (Vinegar)-Sura	Karma Atisevana (Excessive	Viruddha ashana (Taking
(Alcoholic drinks)- Sauveera (A sour	physical work)	incompatible food)
drink prepared of dehusked barley)		
Atisevana		
Kurchika (Inspissated milk)- Kilata		Visha – Vata- Agni dosha
(Cheese)- Mandaka (immature curd)	-	(Exposure to poison, strong
Sevana		wind and fire)
Tila (Sesamum indicum L.) – Masha		
(Vigna mungo L.)- Kulatha		
(Dolichos biflorus Linn.)-Taila	-	Kshata (Injury).
(different types of oil)- Lashuna		
(Allium sativum L.) sevana		

Sapta dushyas involved in Visarpa Samprapti

Rakta (Blood), Laseeka (Lymph), Twak (Skin), Mamsa (Flesh), Tridosha (Vata, Pitta and Kapha)

Samprapti

Nidana Sevana - Pittapradhana Tridosha Dusti- Ashraya in Twak, Rakta, Mamsa and Laseeka – Leading to Twagashrita, Abhyantarashrita and Ubhayashrita Visarpa based on its ashraya in Twak, Abhyantara Dhatu - Both of these producing Vishruta, Anunnata Shopha.

Samprapti Ghataka^[7]

- Dosha- Pitta Pradhana Tridosha
- Dushya- Rakta, Mamsa, Laseeka, Twak
- Agni- Jataragni and Dhatwagni
- Agnidusti- Mandagni
- Srotas- Raktavaha Srotas
- Srotodusti- Sanga followed by Vimarga gamana
- Adhistana- Twak
- Udbhava Sthana- Amapakvashaya
- Sanchara Sthana- Twak and other Dhatus
- Vyaktha Sthana- Twak
- Vyadhi Swabhava- Ashukari
- Roga marga- Bahya and abhyantara

Bheda (Types)

Based on Dosha

Charaka Samhita	Sushruta Samhita ^[8]	Yogaratnakara ^[9]	Madhava Nidana ^[10]
Vataja	Vataja	Vataja	Vatika
Pittaja	Pittaja	Pittaja	Paittika
Kaphaja	Kaphaja	Kaphaja	Kaphaja
Granthi	Sannipataja	Sannipataja	Agneya
Kardama	Kshataja	Vatakaphaja	Granthi
Agni	-	Pittakaphaja	Kardama
Sannipataja	-	Kaphavataja	Sannipataja

Based on Adhisthana^[11]

- 1.Bahya Adhisthana (Twagashrita)
- 2. Abhyantara (Antarika Dhatu)
- 3. Ubhayashrita

Lakshana

Vataja Visarpa	Pittaja Visarpa	Kaphaja Visarpa
Bhrama (Giddiness)	Jwara (pyrexia)	Sheeta Jwara (Fever with
Davathu (Burning sensation	Trishna (Morbid Thirst)	chills)
in eyes)	Murcha (Fainting)	Gaurava (Heaviness)
Pipeelika sanchara eva ca	Atimatra Sweda (Excessive	Nidra (Excessive sleep)
angeshu (Feeling as if ants	sweating)	Arochaka (Anorexia)
are crawling over the body)	Antardaha (Burning	Asyopalepa (Coating in the
<i>Toda</i> (Pricking type of pain)	sensation)	oral cavity)
Shoola (Colicky pain)	Aswapna (Lack of sleep)	Pandu- Alpavedana-
Angamarda (Malaise)	Harita Haridra Netra Mutra	Shwayathu (The oedema
Shyava arunabhasa	Varchas (Green-Yellow	will be pale yellow and with
Shwayathu (The area	colouration of the eyes, urine	less pain)
becomes greyish or pinkish	and the stool	Krichrapaki sphota
and edematous)	Harita Haridra Roopa	(Delayed suppuration)
	darshanam (Green and	Shweta -picchila- tantumat-
	Yellow vision of objects)	snigdha srava (Exudate will
	Achirakari Sphota (Pustules	be white, slimy, knotty and
	which suppurates quickly)	unctuous in nature)

Agni Visarpa	Kardama Visarpa	Granthi Visarpa
(Vatapittaja Visarpa)	(Pittakaphaja Visarpa)	(Kaphavataja Visrapa)
Sarvashareeram Angaraihi	Rakta -peeta- pandu Pidaka	Krichrapaki Granthimala
avakeeryamanam manyate	(Eruptions will be of red,	(Enlarged glands get
(Feeling of whole body	yellow and pale yellow	suppurated very slowly)
sprinkled with charcoal)	colour)	Pradushya Raktam sira
Shanta angara Prakasha	Avakeerna eva mecakabha	snayu mamsa twagashrita
Atirakta avakasha (The area	(The area looks muddy)	Granthimala (Vitiates the
appears like extinguished	Stimita vedana Shwayathu	blood giving rise to a series
charcoal or excessively red)	(Edema with dull pain)	of glandular enlargements
Agnidagdha prakara sphota	Gambheera paka	located in vessels, ligaments
(Pustules similar to those of	Nirasravaha (Deep seated	muscles and skin
burns)	suppuration without	Teevra ruja (Extremely
Marmanusari (Afflicts the	exudation)	painful)
marmas)	Puti mamsa twak	
	Avadeeryate (Eruptions get	
	cracked and putrified muscle	
	tissue comes out)	
	Sira snayu darshi (Vessels	
	and ligaments can be seen)	
	Kunapa Gandhi (Smells like	
	a cadaver)	

Sannipata Visarpa will be manifested with all the signs and symptoms of *ekadoshaja* and *dwandwaja visarpa*. It is considered as *Asadhya* (Incurable).

Sadhya sadhyata

Ekadoshaja Visarpa is said to be Sadhya (Curable).

Agni and Kardama Visarpa are said to be Sadhya if it does not involve Marma (vital organs). If not treated properly, it may cause instant death like snake poison.

Granthi Visarpa should be treated only if complications are not manifested.

Sannipataja and Kshataja Visarpa^[12] is said to be Asadhya (Incurable) because it pervades all the tissue elements, spreads instantaneously and treatment involves mutually contradictory therapeutic measures.

Upadrava^[13]

Jwara (Pyrexia), Atisara (Diarrhea), Vamathu (Vomiting), Twak mamsa Darana (tearing of skin and muscle), Klama (Tiredness), Arochaka (Anorexia), Avipaka (Indigestion).

Modern correlation^[14]

It can be corelated to Herpes zoster Infection. Herpes zoster is the result of reactivation of the Varicella zoster virus that has lain dormant in a nerve root ganglion following Chickenpox earlier in life. Reactivation may be spontaneous (as usually occurs in the middle-aged or elderly) or be due to immunosuppression (As in patients with Diabetes, malignancies or AIDS).

Clinical features -Burning discomfort in the affected dermatome progresses to frank neuralgia. Discrete vesicles appear in the dermatome 3-4 days later and often coalesce. This is associated with a brief viraemia and influenza- like features and potentially produces distant satellite 'Chickenpox' lesions elsewhere.

Complications- The most common and most troublesome complication is post-herpetic neuralgia, which is persistence of pain for 1-6 months or more following healing of the rash. **Diagnosis-** Usually diagnosed clinically from the classical appearance of the rash. Aspiration

of the vesicular fluid and PCR or tissue culture will confirm the diagnosis.

Management- Early therapy with Acyclovir 800 mg 5 times daily or valaciclovir 1g 8th hourly, or in severe infection and in the immunocompromised acyclovir 10mg/kg 8th hourly intra-venously has been shown, especially in patients over 65, to reduce both early and late onset pain.

Post-herpetic neuralgia requires aggressive analgesia plus the use of transcutaneous nerve stimulation (TENS machine) and neurotransmitter modification with agents such as amitriptyline 25-100mg daily.

Chikitsa sutra (Treatment principle)^[15]

Sthana / Lakshana	Chikitsa (Treatment)
Vanhasthanagata	Langhana (fasting), Ullekhana (emesis),
Kaphasthanagata	Tiktaka sevana (Intake of bitter items),
visarpa (Sama)	Ruksha Sheeta Pralepa (Application of ununctous and cold
	paste)
Pittasthanagata Visarpa	In addition to the above treatment, Virechana (Purgation),
(Sama)	Raktamokshana (Bloodletting) should be advised
	Virukshana (Ununctuous therapies) should be administered in the
Vatasthanagata Visarpa	beginning since the disease involves the vitiation of <i>Rakta</i> and
(Sama)	Pitta the Snehana (Oleation therapy) is not useful in the
	beginning.)
In Vatolbana Avastha	Tiktaka Ghrita (Ghee prepared from bitter medicines)
In Pittolbana Avastha	Virechana (Purgation)

Dravya prayoga in Visarpa

Internal administration

- 1. Amalaka (Emblica officinalis Gaerth.) juice is mixed with Ghee is given. [16]
- 2.Soup of *Mudga* (*Phaseolus radiatus* L.), *Masoora* (*Ervum lens* Linn.) or *Chanaka* (*Cicer arientinum* L.), soured or unsoured with Dadima (*Punica granatum* L.), mixed with *Patola* (*Trichosanthus dioica* Roxb.) and *Amalaka* (*Emblica officinalis* Gareth.) is useful.^[17]
- 3. Patient should be given with the decoction of *Patola (Trichosanthus dioica* Roxb.), *Mudga (Phaseolus radiatus* L.) and *Amalaka (Emblica officinalis* Gareth.) mixed with Ghee. [18]
- 4. Trivrut (Operculina terpethum Linn.) along with Ghrita (Ghee) /Guda (Jaggery)/ Ushnodaka (Warm Water) is given for purgation. [19]

External application

- 1.The leaves of *Aragwadha* (*Cassia fistula* Linn.) and the bark of *Shleshmataka* (*Cordia dichotoma* Forst.) should be used separately or in combination as a local paste added with ghee.^[20]
- 2.In Vataja Visarpa, Kantaka-Laghu-Mahath Panchamula dravyas are used as paste, bath, ghee and oil.^[21]
- 3.Cold paste of *Nyagrodha* (*Ficus bengalensis* Linn.), *Udumbara* (*Ficus racemosa* Linn.), *Plaksha* (*Ficus lacor* Buch.Hum.), *Vetasa* (*Salix caprea* L.) and *Ashwattha* (*Ficus religiosa* Linn.) added with profuse Ghee should be applied.^[22]

- 4.Application of Amalaki (Emblica officinalis Gaertn), Vibhitaki (Terminalia belerica Gaertn.) Roxb., Haritaki (Terminalia chebula Retz.) Padmaka (Prunus cerasoides D.), Usheera (Veteveria zizanoids L.), Samanga (Rubia cordifolia L.), Karaveera (Nerium indicum Mill.) and Nala (Arundo donax Linn.) root and Ananta (Hemidesmus indicus L.) cures Kaphaja Visarpa. [23]
- 5.Bathing of the affected part with *Ikshu (Saccharum officinarum* Linn.) *rasa* (sugarcane juice) is recommended.^[24]
- 6.Hot paste of *Karanja (Holarrhena antidysenterica* Wall.), bark or *Mulaka (Raphanus sativus* Linn.) or *Vibhithaka (Terminalia belerica* Roxb.) bark should be applied.^[25]
- 7.Ghee cooked with the juice of *Durva (Cynodon dactylon* L.) should be applied externally which helps in the healing of the ulcers caused by *Visarpa*. [26]
- 8.In Granthi Visarpa, Amalaki (Emblica officinalis Gaertn), Vibhitaki (Terminalia belerica Gaertn.) Roxb., Haritaki (Terminalia chebula Retz.) and Pippali (Piper longum Linn.) is added with Honey, Devadaru (Cedrus deodara Roxb.) and Guduchi (Tinospora cordifolia Miers.) is given for external application. [27]

FORMULATIONS According to AFI^[28]

Churna	Ghrita	Taila	Asavarista	Bhasma
Trayanthyadi	Tikthaka Ghritha	Nalpamaradi Taila	Duralabharista	Kasisa Bhasma
Kwatha Churna	Тікіпака Оптипа	Naipamaraai Taiia	Duratabilarista	Kasisa Dhasma
Nimbadi Kwatha	Patoladi Ghritha	Brahath Guduchi		Sphatika
Churna	Patolaal Ghritha	Taila	-	Bhasma
Panchavalkala	Triphala Ghritha	Maharudraguduchi		Harathala
Kwatha Churna	Tripnaia Gariina	Taila	1	Bhasma
	Mahatiktaka			
	Ghritha		-	

According to Bhaishajya Ratnavali^[29]

- 1.Amrutadi Kwatha
- 2.Navakashaya guggulu
- 3.Dashanga lepa
- 4.Kalagni rudra rasa
- 5. Vrishadya taila
- 6.Karanja taila

Pathya apathy^[30] - Pathya- Apathya is the special concept explained in ayurveda for different diseases. Pathya helps in prevention of srotodusti and aid in proper functioning of it. It is explained in the form of ahara, vihara and aushadha. The pathya-apathya for this disease is explained in the following table.

Pathya	Apathya
Intake of <i>Yava</i> (<i>Hordeum vulgare</i> L.),	
Godhuma (Triticum aestivum L.) Shasthika	Viruddha annapana (Taking incompatible
Shali (Oryza sativa Linn.)	food)
Jangala mamsa rasa, Mudga (Phaseolus	Divaswapna (Day sleep)
radiatus L.), Masura (Ervum lens Linn.)	Krodha (anger)
	Surya-Agni-Pravata (Exposure to sunrays-
Fruits and vegetables - Draksha (Vitis vinifera	heat-breeze)
L.), Karavellaka (Momordica charantia L.),	
Dadima (Punica granatum L.)	

Research updates on Visarpa

1. Ayurvedic Management of *Visarpa* with special reference to Herpes Zoster -A Case Study.^[31]

Female patient of age 70 years complaints of acute skin eruptions preceding severe pain and burning sensation over right scapular region and right side of chest for 3 days. *Patola katurohinyadi Kashaya* 3tsp TID, *Kamadugha rasa* 1TID, *Nimbadi guggulu* 1BID and *Shatadhoutha Ghrita* was given for external application for 7 days. On depiction of overall effects of therapy (Both subjective and objective assessment) it shows >75% improvement i.e., excellent result is noted.

2. Study of topical application of *Himawan agada* in *Pittaja Visarpa*. [32]

A Randomized, Clinical, Active controlled trial was designed to compare their efficacies. The control and trial groups received the respective drugs for topical application in t.i.d. for 10 days as symptoms of *Visarpa* show self-reduction in severity after 10-12 days. In the subjective parameters, *Daha* and *Shoola* showed early and statistically significant reduction in gradation of severity whereas *Srava*, *Paka*, *Sphota*, *Jwara* were also reduced effectively but statistically insignificant as compared to *Shatadhauta ghruta*. Thus, the topical application of *Himawan agada* with *Madhu* is proven effective remedy in *Pittaja Visarpa*.

3. A successful clinical study on management of *Visarpa* (Herpes zoster) through Ayurveda^[33]

The case presented here of 19-year-old female who came with complaints of *Sukshma Pidika* over the *Udara* and *Prushtha Pradesha* along with other associated complaints severely at night time and mild fever since 3 days. As an emergency treatment immediately, *Siravedhana*

was done and along with that *Shamana Aushadhi* like *Chandrakala vati* 2 QD, *Panchatiktaghruta Guggulu* 250 mg 2 QD, *Katuki churna* 3gm + *Avipattikara Churna* 2gm at bed time with Water and *Gairika Churna* 5gm + *Yastimadhu Churna* 3gm for *Lepa* (external application) twice daily with *Dugdha* was given to the patient for a week. Consecutively 2 sittings of *Siravedhana* were done at an interval of 3 days. Assessment of the treatment was done on the basis of improvement in signs and symptoms of *Visarpa*. Lesions of *Visarpa* (Herpes Zoster) were found completely crusted and healed within 1 week of treatment.

4. Management of herpes zoster in *Ayurveda* through medicinal leeches and other composite Ayurveda treatment^[34]

A 65-year-old female patient known case of Type 2 Diabetes Mellitus was treated for Herpes zoster on the basic principles of management of *Pittaja Visarpa*. Rapid decrease in pain severity was observed after the 1st sitting of leech therapy according to Zoster Specific Brief Pain Inventory (ZBPI) Questionnaire. After each sitting pain reduction was observed. Repeated application of *Jalauka* along with internal medications like powders of *Shatavari* 2gm, *Gokshura* 2 gm and *Lodhra* 1gm. Fisillax ointment was given for local application for 8 days. On day-9 *Narikela Mashi* was added along with other medications. Patient got relief from pain, burning related to herpes.

5. Ayurveda management of oro-facial herpes: a case report, Journal of Ayurveda and Integrative Medicine^[35]

A male patient of 72 years presented with sudden onset of edema over upper gums, with 3 to 4 vesicles over the left upper lip, left part of face within 2 days, along with reduced sensation to touch and temperature. The patient had redness, watering and burning sensation of left eye. Clinically the patient was diagnosed with "Oro- Facial Herpes". Patient was advised daily cleaning of the affected part with *panchavalkala* decoction for 10 days, topical application of *mahatiktaka ghrita* ointment. Virocil syrup 15 mL TID, the powder of *Guduchi, Nimba, Sariva, Vasa* and *Amalaki* 4 gm TID, Tab *Sootashekara* with gold 1Tab. BID, Tab Nirocil 1 tablet TID and *Avipattikara churna* 10 gm HS. The patient did not complain of any pain or burning sensations and lesions were healed. The same medicines were continued and *Nimbaamrutadi Eranda Taila* 10 mL at bed time for three days was added after completing the dose of *Avipattikara churna*. The complaints of pain in the lesions reduced from 8 to 2 and burning sensation reduced by 90%.

DISCUSSION

The name *Visarpa* is due to its rapid spread all over the body in all directions. It is the disease caused by the vitiation of pitta-rakta and involvement of both Bahya and abhyantara rogamarga. Chardi vegadharana is considered to be one of the important nidana causing Visarpa. Presence of Sphota (Blisters) and Shopha (Swelling) are the cardinal features of this disease. Based on dosha involvement, Visarpa is mainly classified into 7 types. Herpes zoster is a viral infection caused by Varicella zoster which can be considered as Visarpa in which there will be burning discomfort in the affected dermatome progresses to frank neuralgia. Discrete vesicles appear in the dermatome 3-4 days later and often coalesce. In this case, antiviral treatment is ideal whereas ayurveda mentions wide range of treatment modalities in which Virechana-Raktamokshana, Sheeta pralepa are of importance. These therapies help in Shodhana and Shamana of pitta dosha respectively. All these treatment modalities will either eliminate or pacify the aggravated pitta and rakta. Tikta Kashaya rasa dravyas helps in alleviating the Shopha and Sphota. Sheeta veerya of various drugs helps in alleviating the ushnatva. Shatadhouta ghrita is the one which helps in reducing daha produced from the lesions. Dadima, Draksha, Karavellaka and other dravyas which are easy to digest are given as *Pathya*. The patient should avoid exposure to sunrays, breeze, anger, day sleep, etc.

CONCLUSION

Visarpa is a disease caused by the vitiation of raktavaha srotas and Pitta -rakta prakopaka nidanas. As it is a disease which spreads immediately in all directions as that of snake poison, it should be treated in earlier stage with proper medications. The main treatment includes Virechana, Raktamokshana, Tiktha Ghrita pana and Sheeta pralepa. Shodhana therapies like Virechana and raktamokshana will help in elimination of vitiated pitta and Ghrita pana. Other internal and external medicines will help in *shamana* of *pitta dosha*.

REFERENCES

- 1. Sharma RK, Dash BV, Agnivesha's Charaka Samhita. ed.1. Chikitsa sthana; Visarpa Chikitsa: 21, verse no.11. Varanasi: Chaukhambha Krishnadas Academy, 2004; pg.261.
- 2. Acharya YT, Commenatry of Chakrapanidatta on Charaka Samhita by Agnivesha, Chikitsasthana; Visarpa Chikitsa: Chapter no.21, verse no.11. Varanasi, Chaukambha Surbharati Prakashan, 2014; p.559.
- 3. Davidson's Principles and Practice of medicine, ed.19. Elsevier Health Sciences, 2002; pg 1199.

- 4. Herpes Zoster in outpatient dept. of health care centres in INDIA- A REVIEW OF LITERATURE.
- Sharma RK, Dash BV, Agnivesha's Charaka Samhita. ed.1. Chikitsa sthana; Visarpa Chikitsa: 21, verse no.16-21. Varanasi: Chaukhambha Krishnadas Academy, 2004; pg.262-63
- 6. Acharya YT, Commenatry of Chakrapanidatta on Charaka Samhita by Agnivesha, Sutrasthana; Navegandharaneeya Adhyaya: Chapter no.7, verse no.14.Varanasi, Chaukambha Surbharati Prakashan, 2014; pg.49.
- 7. Byadgi PS, Ayurvediya Vikriti Vijnana and Roga Vijnana.ed.1. New Delhi, Chaukambha publications, 2012; vol.2, pg.302.
- 8. Acharya YT, ed.5. Sushruta Samhita of Sushruta with Nibandha Sangraha Tika of Sri Dalhanacharya, Nidana sthana; Visarpa nadi stanaroga Nidana: Chapter no 10, verse no.4-8. Varanasi; Chaukambha Orientalia, 1992; pg.306-07.
- 9. Shastry L, Sasthri B, (ed.1). Vidyotani Commentary on Yoga ratnakara, Uttarardha; Visarpa nidana, verse no.2-3. Varanasi: Chaukambha prakashan, 2021; pg.245.
- Madhavakara, Acharya JT, (ed.6). Madhukpsha of Vijayarakshita and Shrikanthadatta on Madhavanidana, Visarpanidanam, verse no.2-3. Varanasi: Chaukhambha Orientalia, 2001; pg.293.
- 11. Sharma RK, Dash BV, Agnivesha's Charaka Samhita. ed.1. Chikitsa sthana; Visarpa Chikitsa: 21, verse no. 23-42. Varanasi: Chaukhambha Krishnadas Academy, 2004; pg.264-78.
- 12. Sharma AK, Kayachikitsa. Delhi, Chaukambha Orientalia, 2022; vol 2, pg.857.
- 13. Shastry L, Sasthri B, (ed.1). Vidyotani Commentary on Yogaratnakara, Uttarardha; Visarpa nidana, verse no.26. Varanasi: Chaukambha prakashan, 2021; pg.247.
- 14. Davidson's Principles and Practice of medicine, ed.19. Elsevier Health Sciences, 2002; pg.1199.
- 15. Sharma RK, Dash BV, Agnivesha's Charaka Samhita. ed.1. Chikitsa sthana; Visarpa Chikitsa: 21, verse no. 43-49. Varanasi: Chaukhambha Krishnadas Academy, 2004: pg.278-79.
- 16. Sharma RK, Dash BV, Agnivesha's Charaka Samhita. ed.1. Chikitsa sthana; Visarpa Chikitsa: 21, verse no.67. Varanasi: Chaukhambha Krishnadas Academy, 2004; pg.282.
- 17. Sharma RK, Dash BV, Agnivesha's Charaka Samhita. ed.1. Chikitsa sthana; Visarpa Chikitsa: 21, verse no.111. Varanasi: Chaukhambha Krishnadas Academy, 2004; pg.292.

- 18. Sharma RK, Dash BV, Agnivesha's Charaka Samhita. ed.1. Chikitsa sthana; Visarpa Chikitsa: 21, verse no.61. Varanasi: Chaukhambha Krishnadas Academy, 2004; pg.281.
- 19. Sharma RK, Dash BV, Agnivesha's Charaka Samhita. ed.1. Chikitsa sthana; Visarpa Chikitsa: 21, verse no 64-65. Varanasi: Chaukhambha Krishnadas Academy, 2004; pg.282.
- 20. Sharma RK, Dash BV, Agnivesha's Charaka Samhita. ed.1. Chikitsa sthana; Visarpa Chikitsa: 21, verse no.89-92. Varanasi: Chaukhambha Krishnadas Academy, 2004; pg.288.
- 21. Acharya YT, ed.5. Sushruta Samhita of Sushruta with Nibandha Sangraha Tika of Sri Dalhanacharya, Chikitsa sthana; Visarpa nadi stanaroga Chikitsa: Chapter no.17, verse no.5. Varanasi; Chaukambha Orientalia, 1992; pg.466.
- 22. Sharma RK, Dash BV, Agnivesha's Charaka Samhita. ed.1. Chikitsa sthana; Visarpa Chikitsa: 21, verse no.85. Varanasi: Chaukhambha Krishnadas Academy, 2004; pg.287.
- 23. Tewari PV, Asha Kumari, English translation on Vrinda madhava, Part 2, chapter no.5, verse no.16. Varanasi; Chaukambha Bharathi Academy, 2006; pg.668.
- 24. Acharya YT, ed.5. Sushruta Samhita of Sushruta with Nibandha Sangraha Tika of Sri Dalhanacharya, Chikitsa sthana; Visarpa nadi stanaroga Chikitsa: Chapter no.17, verse no.9. Varanasi; Chaukambha Orientalia, 1992; pg.466.
- 25. Sharma RK, Dash BV, Agnivesha's Charaka Samhita. ed.1. Chikitsa sthana; Visarpa Chikitsa: 21, verse no.124. Varanasi: Chaukhambha Krishnadas Academy, 2004; pg.295.
- 26. Sharma RK, Dash BV, Agnivesha's Charaka Samhita. ed.1. Chikitsa sthana; Visarpa Chikitsa: 21, verse no.96. Varanasi: Chaukhambha Krishnadas Academy, 2004; pg.289.
- 27. Cheriya AV, Namboodiri N, Ashtanga Hridaya Samhita with Shashilekha commentary of Indu, Chikitsa sthana; Visarpa Chikitsa: Chapter no 18, verse no.29. Varanasai; Chaukambha Krishnadas Academy, 2007; pg.398.
- 28. Ministery of Health and Family Welfare, The Ayurveda Formulary of India, Part 1.2003; Delhi: The controller of publications Civil Lines, 449.
- 29. Govinda Das Sen, Bhaishajya Ratnavali with Hindi commentary Siddhiprada of Siddhinandan Mishra, Visarpa Rogadhikara: Chapter 57, verse no.17-25, Varanasi: Chaukambha Surbharati Prakashan, 2019; pg.918-19.
- 30. Sharma RK, Dash BV, Agnivesha's Charaka Samhita. ed.1. Chikitsa sthana; Visarpa Chikitsa: 21, verse no. Varanasi: Choukambha Krishnadas Academy, 2004; pg.261.
- 31. C.H. Rajani, Santosh.N.Belavadi. Ayurvedic Management of Visarpa w.s.r.to Herpes Zoster -A Case Study. AYUSHDHARA, 2019; 6(1): 2045-2051.

- 32. Patil AB, Namewar PD, Chounde K. Study of topical application of Himawan agada in Pittaja Visarpa. World journal of Pharmacy and Pharmaceutical sciences, 2018; 7(5): pg.964-972.
- 33. Rai P, Parappagoudra M, Pathan SK, Roy KB. A successful clinical study on management of Visarpa (Herpes zoster) through Ayurveda, World Journal of Pharmaceutical and Medical Research (WJPMR), 2019; 5(7): pg.238-241.
- 34. Nakanekar A, Khobarkar P, Dhotkar S. Management of herpes zoster in Ayurveda through medicinal leeches and other composite Ayurveda Treatment, Journal of Ayurveda and Integrative Medicine (JAIM), 2020; 11: 352-356.
- 35. Mutnali K, Roopa BJ, Shivaprasad T, Yadav R. Ayurveda management of oro-facial herpes: a case report, Journal of Ayurveda and Integrative Medicine (JAIM), 2020; 11: 357-359.