

ISSN 2456-3110 Vol 3 · Issue 5 Sep-Oct 2018

# Journal of Ayurveda and Integrated Medical Sciences

www.jaims.in

Indexed





### ISSN: 2456-3110

# Ayurvedic Management of Systemic Lupus Erythematosus Overlap Vasculitis vis a vis *Vatarakta* -A Case Report

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## ABSTRACT

Systemic Lupus erythematosus is the classic prototype of multisystem disease of autoimmune origin. SLE may be associated Vasculitis as an overlap syndrome. In this paper, a patient diagnosed as SLE with Vasculitis, which was managed successfully by Ayurveda treatment is discussed. A 39 year old female patient came to hospital with complaint of severe pain and burning sensation in both the legs for two months, associated with ulceration and gangrene of toes of both the legs for the last 15 days. She was diagnosed as SLE overlap vasculitis at a higher medical centre with relevant investigations and advised to go for amputation. As patient was not willing for surgery came to Ayurveda treatment. The condition was diagnosed as disease *Vatarakta* and treatment was planned accordingly. Treatment was planned by selecting suitable oral medicines, planning suitable *Panchakarma* procedures along with the ulcer management. *Guduchi (Tinospora cordifolia)* was the main drug which is used in *Rasayana* dosage. Patient responded well and we could able to save the limb. Patient was under follow up for more than a year without any complications and relapses.

Key words: Systemic Lupus Erythematosus, Overlap Syndrome, Vasculitis, Vatarakta, Guduchi.

### INTRODUCTION

Systemic Lupus Erythematosus (SLE) is the classic prototype of multisystem disease of autoimmune origin. The cause of SLE remains unknown but the existence of a seemingly limitless number of antibodies in patients against self-constituents indicates that the fundamental defect in SLE is a failure of the regulatory mechanism that sustain self-

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constituents indicates that the fundamental defect in SLE is a failure of the regulatory mechanism that sustain self-tolerance. Arthritis, Arthralgia, Fever, Photosensitive erythematous butterfly rash across the face are the common clinical presentations. Anti-Nuclear Antibody profiling is the important investigation for the diagnosis of SLE. Management of the SLE includes use of systemic corticosteroid therapy, immunosuppressive drugs, Nonsteroidalanti-inflammatory drugs and Antimalarial drugs. Prognosis for life has improved dramatically from the modern management but still the response to the treatment is not good enough to prevent the acute attacks and complications. SLE may be associated with overlap syndrome. Vasculitis may present as an overlap syndrome in the course of SLE. Along with the features of SLE, patient will have the features of Vasculitis like erythematous lesions, Raynaud's phenomenon, ulcerations and gangrene.<sup>[1]</sup> In this paper a patient diagnosed as SLE overlap Vasculitis, which was managed successfully by Ayurveda treatment is discussed.

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A 39 year old female came to hospital with complaints of severe pain and burning sensation on both the legs for two months, associated with blackish discolouration with ulceration on the toes for the last 15 days. The patient was apparently normal 2 months back but she then gradually developed burning sensation over both the legs. Pain was pronounced during putting on foot wear and at night. Pain was not increasing on walking. She noticed discoloration of the skin over both the feet. She had pain in both elbow joints, shoulder joints and in the low back associated with febrile attacks. Fever was intermittent in nature, usually seen when the pain was severe. She had reddish rashes over face and neck region. 15 days back she noticed blackish discolouration of toes, which gradually turned darker. There was no past history of Diabetes mellitus, Hypertension, Tuberculosis or Trauma. Her appetite had reduced. She used to take more of spicy and non-vegetarian diets. Bowel evacuation and Micturition were normal and Sleep was disturbed due to pain. Menstruation was irregular and appeared once in two months with reduced quantity and painful flow. For these complaints, she took treatment from a higher medical centre where she was diagnosed as having SLE overlap vasculitis. On examination, her built and nourishment were moderate, vitals were normal but at the time of febrile attacks temperature used to touch 100° F. On General Examination Skin on both the legs appeared reddish with blackish spots. Blackish discolouration with ulceration was observed on Left second, third and fourth toe and fourth toe of right leg with clear line of demarcation without any discharge. Nails of all the toes were deformed. She also had reddish discoloration over face and neck region with macular eruptions. Lymph nodes were not palpable. Dorsalis pedis pulsation was not felt on left foot. She had pain and tenderness over both shoulder, elbow and lumbosacral region. There was no swelling in the joints or reddish discoloration but the range of movements were reduced. Systemic examination did not revealsignificant deformities. She was diagnosed as having SLE overlap vasculitis in a higher medical centre with relevant investigations like study of Antinuclear antibodies confirming the diagnosis. Basic investigations conducted at our hospital showed Hb% - 11.2gms%, ESR - 28mm in 1<sup>st</sup> hr, TC - 7,900, N - 46%, L - 47%, E - 5%, Random Blood Sugar 119mg / dl. In higher medical centre, doctors advised amputation for the gangrenous foot for which she was unwilling and came to seek Ayurveda treatment (IPD No.1725, DOA:1/10/2014). (Photo 1)

### Diagnosis

According to Ayurveda, diseases will manifest when there is an imbalance between three *Dosha* (humors) i.e. Vata, Pitta, Kapha in the body. These vitiated Doshas affect the basic tissues of the body known as Dhatu resulting in manifestation of the disease. Indulging in aetiological factors leads to the vitiation of Vata, Pitta and Rakta. Vitiated Vata was producing symptoms like joint pain, pain in legs, blackish discolouration. While Pitta Dosha was responsible for fever and burning sensation. Vitiated Rakta was producing symptoms like skin rashes and redness of skin over feet. As the disease progressesvitiated Vata and *Rakta* mutually obstruct their path at peripheral small vessels, explained as Mishraavarana, leading to formation of ulcer and gangrenous changes over the smaller joints and toes. The condition was diagnosed as Vatarakta based on clear clinical presentation.<sup>[2]</sup> Pathogenesis of which is explained in Table 1.

### Table 1: Vatarakta Samprapti according to Ayurveda

<i>Nidana</i> (Aetiology)	Katu, Lavanaati Sevana, Ratri Jagarana		
Dosha Dusti	Vataprakopa: Pain in joints, pain in legs, Blackish discoloration, brittle nails. Pitta: Fever, Burning sensation.		
Dhatu	Rasa: Fever Rakta: Reddish skin lesions, Blackish discoloration and Ulceration. Maamsa: Blackish discoloration of toes. Asthi: Involvement of joints and phalanx.		

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Agni Srototdusti	Jataraagni: Manda (Weak) Dhatwagni: Maandya of Rasa and Rakta. Sangha	
Poorvarupa	Intermittent pain in joints, Reddish discoloration over face.	
Rupa	Joint pain, Fever, Skin lesions, Pain in both lower limbs	
Upadrava	Balckish discolouration, Gangrene of toes mentioned as <i>Maamsakotha, Samprasravi, Vivarna</i> .	
Vyadhivinischaya	Vatarakta	
Туре	In the beginning, involvement of superficial <i>Dhatus</i> like <i>Rasa</i> and <i>Rakta</i> were producing reddish skin lesions, burning sensation and fever. This condition is known as <i>Uttanavatarakta</i> . Later with the involvement of deeper <i>Dhatus</i> like <i>Maamsa</i> and <i>Asthi</i> , symptoms like joint pain and Pain in both legs appeared. As disease further progressed, flow of <i>Vata</i> and <i>Rakta</i> were mutually obstructed producing a condition known as <i>Mishraavarana</i> , leading to gangrenous changes. This stage is known as <i>Gambhira Vatarakta</i> .	

### **Therapeutic intervention**

Vatarakta being a systemic disease, the management was planned on lines of Vatarakta Chikitsa aimed at controlling the vitiated Vata, Pitta and to normalise the Rakta Dusti. Treatment was planned and executed on three lines 1) Selection of suitable oral medicines, 2) Appropriate panchakarma procedures and 3) Ulcer management.

### **Oral Medications**

Oral medicines were selected which are indicated in *Vatarakta* disease. As *Vata* and *Raktadusti* were present the preferred medicine should contain the drug like *Guduchi* (*Tinospora cordifolia*). So Tablet

Kaishora Guggulu<sup>[3]</sup> was selected. As main complaint was gangrene of the toes, Tablet Gandhaka Rasayana<sup>[4]</sup> was added to promote wound healing and to control infection. As this is an autoimmune and Avarana condition, Rasayana drugs were preferred, Tablet Shivagutika<sup>[5]</sup> was added. Mahamanjistadi Kashaya<sup>[6]</sup> was prescribed orally to normalise the vitiation of Rakta. As the Doshas were severely vitiated and regular cleansing of the gut was needed, Avipattikara Churna<sup>[7]</sup> was prescribed which is a laxative. All the drugs were manufactured at Muniyal Ayurveda pharmacy, Manipal, India. (Table 2)

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### Table 2: Oral medication

Drug	Dosage		Relatio n to food	Advise
Kaishora Guggulu	400mg	1 tablet three times (Morning, Afternoon, Night)	After food	With warm water
Gandhaka Rasayana	200 mg	1 tablet three times	After food	With warm water
Shiva Gutika	500mg	1 tablet in the morning and one at night	After food	With warm water
Mahamanjist adi Kashaya	20ml	Three times	After food	With equal quantit y of warm water.
Avipattikara Churna	5gms	Two times, Morning and Night	After food	With warm Water

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### Panchakarma therapy

As the disease was of Bahudoshaavastha (severe vitiation of Dosha), It needs Shodhana (purificatory therapy). Basti (enema) was preferred as it is indicated in Vata dominant painful leg ulcers. Manjishtadi Kashaya<sup>[8]</sup> was selected for Niruhabasti (medicated decoction enema) (Table 3). Niruhabasti should accompany Anuvasanbasti (Enema of medicated oil). Balaguduchyaditaila<sup>[9]</sup> was selected for Anuvasana. Basti was administered for fifteen days as Kala Basti<sup>[10]</sup> regimen with nine Anuvaasana and six Niruha. Niruhabasthi was prepared by mixing honey, salt, oil, paste of Yasthimadhu (Glycyrrhiza glabra) and Manjistadi decoction, sequentially with the help of mortar and pestle. It was administered in empty stomach in early morning before breakfast with the help of enema can. Patient was made to lie on left lateral position while administering the basti. She was advised to hold the enema contents as long as possible. Balaguduchyadi Taila was used for Anuvasana Basti, about 60 ml of Taila was administered as Anuvasana Basti on 1, 3, 5, 7, 9, 11, 13, 14, and 15<sup>th</sup> day soon after lunch.

### Table 3: Ingredients of Manjistadi Niruha Basthi

Contents	Ingredients	Quantity
Honey		80 ml
Rock Salt		5 gms
Oil	Balaguduchyadi Taila	60 ml
Paste	Yastimadhu (Glycyrrhiza glabra )	15 gm
<i>Manjistadi</i> Decoction	Manjista (Rubia cordifolia)	300 ml
(Decoction was prepared by	Hareetaki (Terminalia chebula)	
adding eight parts of water to one part of	Vibheetaki (Terminalia bellerica)	
coarse powder of Manjistadi	Amalaki (Phyllanthus emblica)	
Kashaya Churna	Katuki (Picrorhiza	

and reduced to half by boiling.)	kurroa) Vacha (Acorus	
	calamus)	
	Daruharidra (Berberis aristata)	
	Amruta (Tinospora cordifolea)	
	Nimba (Azadirachta indica)	
	(Dry coarse powder in equal quantity)	

### **Ulcer management**

Gangrenous foot ulcer of dry variety was managed conservatively with *Gomutraarka* (Distilled Cow's Urine) wash and dressing with *Jatyaditaila*.<sup>[11]</sup> After 6 days of the treatment, Terminal phalanx of the left second toe was at the verge of falling off and was surgically amputated without anaesthesia and antibiotic cover. Ulcer dressing was done on daily basis.

She was advised to take only vegetarian diet devoid of spice and oil in limited quantity. She had been instructed to avoid pickle, brinjal, cabbage and cauliflower. No concomitant allopathic medication was given during this whole treatment.

### **Response to Treatment**

Patient responded well to the treatment, symptoms like pain in the feet, joints, skin lesions and febrile episodes started to reduce gradually by the end of one week of treatment. Changes in the ulcer were also noted. Gangrene was well localised and autoamputation begin to occur at the terminal phalanx of the left second toe, later it was surgically amputated on 6<sup>th</sup> day. After 15 days of treatment, remaining ulcers began to show signs of healing with development of reddish granulation tissue at periphery and unhealthy gangrenous tissue was debrided whenever needed. At the end of completion of the enema course burning sensation, pain in feet, joint pain, skin lesions and other symptoms were relieved. Occasionally she had attacks of mild pain in

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the feet and skin rashes. About 50% improvement was seen at the end of hospital stay. Patient was discharged from the hospital on 17/10/2014 with same oral medicines and advised to continue ulcer dressing with *Jatyadi Taila*. Even though she showed good response, *Guduchi Rasayana* Capsule was started to prevent the relapse of the disease.

*Guduchi Rasayana*: *Guduchi (Tinospora cordifolia)* is one of the extensively used drug in Ayurveda. It is indicated in conditions where there is vitiation of *Vata, Pitta* and *Rakta*. It has *Rasayana* or rejuvenating property. The maximal dosage of *Guduchi*, to get the *Rasayana* effect is explained in *Charaka Samhita, Rasayana* chapter<sup>[12]</sup> but with some modifications in the form of administration it has been given to the patient. *Guduchi* extract capsule, 500 mg (SDM Pharmacy, Udupi, India.), was given in increasing doses in empty stomach, early morning with water for one month. Four capsules were given on first day followed by eight on second day and twelve capsules from third day to thirty days.

Follow up: Patient was advised to visit once in every 15 days. After one month of treatment significant improvement was seen. Her general condition improved. Pain in joints, pain in feet and skin rashes disappeared. There were no febrile attacks. Wound was steadily healing. Occasionally she used to express pain at night but the severity had reduced. After completion of Guduchi Rasayana, she was advised to continue oral medicines like Kaishora Guggulu, Gandhaka Rasayana, Shivaqutika, Mahamanjistadi Kashaya. Ulcer was managed with Jatyadi Taila dressing. After two months of treatment foot ulcers healed completely and reduction in other symptoms was also observed. (Photo 2). Since it is an autoimmune disease she was advised to continue the treatment for longer duration. She was under follow up for more than one year without any relapse or complications (Last follow up date : 11/6/2016).

### DISCUSSION

Systemic lupus erythematosus is a chronic autoimmune disease characterised by the presence of wide range of auto-antibodies. Clinical presentation of



Photo 1: Gangrenous toes at the time of admission



Photo 2: Improvement after complete Treatment

SLE is heterogenous and can display a broad spectrum of manifestations including vasculitis in 11% of the patients. The term overlap syndrome includes a large group of conditions characterized by the co-existence of signs and symptoms and immunological features of two or more connective tissue diseases and occurring simultaneously in a patient. Survey studies on SLE and antineutrophil cytoplasmic antibody (ANCA)

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associated vasculitis overlap syndrome found that most of the patients were female, presents with a severe clinical presentation like rapidly progressive glomerulonephritis and frequent pulmonary involvement.<sup>[13]</sup> Clinician must be aware of such an overlapping syndrome. In this case association of vasculitis with ANCA was not confirmed so it cannot be included under ANCA associated vasculitis.

In Ayurveda, Vatarakta is explained as an example for Avarana pathology. Concepts like Uttana (superficial) and Gambhira (deep) state of the disease give idea about the progression of the disease and involvement of multiple tissues and organs. In this case, vitiated Vata produced symptoms like joint pain and leg pain, later as Pitta and Rakta gets involved in the process patient developed burning sensation, skin rashes and fever. As flow of Vata and Rakta gets obstructed mutually at the peripheral vessels of the lower limbs because of Mishraavarana, gangrenous changes over resulted. This complex presentation of toes disharmony between Dosha and Dhatu with obstruction, directs us towards Autoimmunity of modern pathology. Complete Ayurveda diagnosis of this case can be termed as Sopadrava Gambhira Pitta Raktadusti Pradhana Vaatarakta.

Samprapti Vighatana (treatment) in such condition can be achieved by relieving Avarana and later correcting vitiated Vata and Pitta along with Rakta Prasadaka and Rasayana drugs. Guduchi is the drug of choice in the management of Vatarakta. Guduchi possess Tikta Rasa (Bitter in taste), Madhura Vipaka (Sweet after digestion) and Ushna Veerya (Hot in potency). It has Vatahara, Rakta Prasadaka, Rasayana property which is indicated in Vata-rakta Avarana condition.<sup>[14]</sup> Studies on *Tinospora cordifolia* have shown that it is having anti-inflammatory, anti-oxidant and immunomodulatory action.<sup>[15]</sup> Medicines Kaishora Guggulu and Balaguduchyadi Taila both contains Guduchi as major ingredient. Kaishora Guggulu and Avipattikara Churna contains laxative drugs which ensures daily expulsion of Doshas. Basti brings the Doshas towards Pakwashaya (Large intestine) from entire body and expels it through anal route. It is indicated in foot ulcers with Vata Dosha predominance and Avarana.<sup>[16]</sup> Large intestine is considered as the place of origin for all Vata disorders. Basti and laxatives help to keep large intestine clean, thus control further vitiation of Vata. Manjista and other drugs in the Mahamanjistadi Kashaya and Manjistadi Niruha Basti have Rakta Prasadaka property and indicated in Raktadusti conditions. Rubiadin<sup>[17]</sup>present in *Manjista* has antioxidant property. Shiva Gutika contains Shilajatu<sup>[18]</sup> (Asphalthum) which is processed with multi herbal decoctions having antioxidant and rejuvenation properties. It helps to prevent the destruction of the tissues. After initial Shodhana treatment for 15 days *Guduchi* was given in high dose as Rasayana regimen for one month for effective control of autoimmune reaction and to prevent relapse. Total treatment planned here, regulates Vata, relieves obstruction for the flow of Rakta produced due to Mishra Avarana and maintains the normal flow of Rakta at peripheral vessels. Rasayana drugs are indicated in Avarana, prevents further destruction of the tissues and promote regeneration. In ulcer management, Gomutra Arka acts as debriding agent and Jatyadi Taila promotes wound healing. Good result obtained in this case shows the effectiveness of complete Ayurveda management. Lack of specific investigation reports as an evidence for the response to the treatment, is a limitation of this case study.

### **CONCLUSION**

Knowledge of pathogenesis and complications of a disease according to Ayurveda and Modern science is necessary for proper planning of the treatment. Ayurveda drugs are effective in the management of autoimmune diseases like SLE. *Shodhana Chikitsa, Shamana* drugs followed by *Guduchi Rasayana* showed wonderful result in this case of complicate SLE overlap vasculitis. Further research is needed on use of single drugs as *Rasayana* in large doses.

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**How to cite this article:** Dr. Gururaja D, Dr. Veeraj Hegde. Ayurvedic Management of Systemic Lupus Erythematosus Overlap Vasculitis vis a vis Vatarakta - A Case Report. J Ayurveda Integr Med Sci 2018;5:231-237.

http://dx.doi.org/10.21760/jaims.v3i5.13850

Source of Support: Nil, Conflict of Interest: None declared.

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