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Case Report

Ayurvedic Management of Systemic Lupus Erythematosus overlap Vasculitis

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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 was 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 from a higher medical centre with relevant investigations and advised to go for amputation. As patient was not willing for surgery, alternatively opted for Ayurveda treatment. The condition was diagnosed as disease *Vatarakta* according to Ayurveda and treatment was planned accordingly. Treatment was planned by selecting suitable oral medicines, suitable *panchakarma* procedures along with the ulcer management. *Tinospora cordifolia* was the main drug of choice. Treatment was successful and able to save the limb. Patient was followed up for more than a year without any complications and relapses.

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1. 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-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, Non-steroidal anti-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 [1]. In this paper a patient diagnosed with SLE overlap vasculitis was managed successfully by Ayurveda treatment was discussed.

2. Patient information and clinical findings

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 discolouration 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. 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

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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. With 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 of legs, the skin appeared reddish with blackish spots. Blackish discoloration with ulceration was observed on left 2nd, 3rd, 4th toe and fourth toe of right leg with clear line of demarcation without any discharge. Nails of all 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 reveal significant deformities. She was diagnosed as having SLE overlap vasculitis in a higher medical centre with relevant investigations like study of anti-nuclear antibodies confirming the diagnosis. Basic investigations conducted at our hospital showed Hb %: 11.2 Gms, ESR: 28 mm in 1st hr, TC: 7,900, N: 46%, L: 47%, E: 5%, Random Blood sugar 119 mg/dL. In higher medical centre, doctors advised amputation for the gangrenous foot. She was unwilling and came to seek Ayurveda treatment (Fig. 1).



Fig. 1. Condition of the foot at the time of admission, before treatment.

3. 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 discoloration. 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 progresses vitiated *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 [2]. Pathogenesis of *vatarakta* was described in Table 1.

4. 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 *raktadusti*. Treatment was planned and executed on three lines 1. Selection of suitable oral medicines, 2. Appropriate panchakarma procedures and 3. Ulcer management.

4.1. Oral medications

Oral medicines were selected which are indicated in *Vatarakta* disease. As *vata* and *rakta dusti* were present the preferred medicine should contain the drug like *Guduchi* (*Tinospora cordifolia*) So Tablet Kaishora *guggulu* [3] was selected. As main complaint was gangrene of the toes, Tablet *Gandhaka rasayana* [4] was added to promote wound healing and to control infection. As this is an autoimmune and *avarana* condition, *Rasayana* drugs were preferred, Tablet *Shivagutika* [5] was added. *Mahamanjistadi kashaya* [6] 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* [7] was prescribed which is a laxative. All the drugs were manufactured at Muniyal Ayurveda pharmacy, Manipal, India (Table 2).

Table 1

Vatarakta Samprapti or pathogenesis according to ayurveda.

Nidana (Aetiology)	Katu, Lavana atisevana. Ratri Jagarana
Dosha dusti	<i>Vata prakopa</i> : Pain in joints, pain in legs, Blackish discoloration, brittle nails. <i>Pitta</i> : Fever, Burning sensation.
Dhatu	<i>Rasa</i> : Fever <i>Rakta</i> : Reddish skin lesions, Blackish discoloration and Ulceration. <i>Maamsa</i> : Blackish discoloration of toes. <i>Asthi</i> : Involvement of joints and phalanx.
Agni	<i>Jataraagni</i> : Manda (Weak) <i>Dhatwagni</i> : Maandya of Rasa and Rakta.
Srotodusti	<i>Sangha</i>
Poorva rupa	Intermittent pain in joints, Reddish over face.
Rupa	Joint pain, Fever, Skin lesions, Pain in both lower limbs
Upadrava	Blackish discoloration, Gangrene of toes mentioned as <i>Maamsakotha</i> , <i>Samprasravi</i> , <i>Vivarna</i>
Vyadhi vinischaya	<i>Vatarakta</i>
Type	In the beginning, involvement of superficial dhatus like Rasa and Rakta, were producing reddish skin lesions, burning sensation and fever. This condition is known as <i>Uttana vatarakta</i> . Later with involvement of deeper dhatus 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> obstructed producing a condition known as <i>Mishraavarana</i> , leading to gangrenous changes. This stage is known as <i>Gambhira Vatarakta</i> .

Table 2
Oral medicines.

Drug	DOSAGE	Relation to food	Advise	
<i>Kaishora guggulu</i>	400 mg	1 tablet three times (Morning, Afternoon, Night)	After food	With warm water
<i>Gandhaka rasayana</i>	200 mg	1 tablet three times	After food	With warm water
<i>Shiva gutika</i>	500 mg	1 tablet morning and at night	After food	With warm water
<i>Mahamanjistadi kashaya</i>	20 mL	Three times	After food	With equal quantity of warm water.
<i>Avipattikara Churna</i>	5 gms	Two times, Morning and Night	After food	With warm Water

4.2. 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. *Manjistadi kashaya* [8] was selected for *Niruha basti* (medicated decoction enema) (Table 3). *Niruha basti* should accompany *anuvasan basti* (Enema of medicated oil). *Balaguduchyadi taila* [9] was selected for *Anuvasana Basti*. *Basti* was administered for fifteen days as *Kala basti* [10] regimen with nine *anuvasana* and six *niruha*. *Niruha basti* 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 *anuvasan basti*, about 60 mL of *taila* was administered as *anuvasan basti* on 1, 3, 5, 7, 9, 11, 13, 14, and 15th day soon after lunch.

4.3. Ulcer management

Gangrenous foot ulcer of dry variety was managed conservatively with *Gomutra arka* (Distilled Cow's urine) wash and dressing with *Jatyadi taila* [11]. 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.

5. Response to treatment

She responded well to the treatment, symptoms like pain in the feet, joints, skin lesions and febrile episodes started to reduce

Table 3
Ingredients of *Manjistadi Niruha basti*.

Contents	Ingredients	Quantity
Honey		80 mL
Rock Salt		5 gms
Oil	<i>Balaguduchyadi taila</i>	60 mL
Paste	<i>Yasthimadhu</i> (<i>Glycyrrhiza glabra</i>)	15 gm
<i>Manjistadi</i>	<i>Manjista</i> (<i>Rubia cordifolia</i>)	300 mL
Decoction	<i>Hareetaki</i> (<i>Terminalia chebula</i>)	
(Decoction was prepared by taking one part of coarse powder of the drugs adding with eight parts of water and reduce to half by boiling.)	<i>Vibheetaki</i> (<i>Terminalia bellerica</i>) <i>Amalaki</i> (<i>Phyllanthus emblica</i>) <i>Katuki</i> (<i>Picrorhiza kurroa</i>) <i>Vacha</i> (<i>Acorus calamus</i>) <i>Daruharidra</i> (<i>Berberis aristata</i>) <i>Amruta</i> (<i>Tinospora cordifolia</i>) <i>Nimba</i> (<i>Azadirachta indica</i>) (Dry coarse powder in equal quantity)	

gradually by the end of one week of treatment. Changes in the ulcer were also noted. Gangrene was well localised and auto amputation began to occur at the terminal phalanx of the left second toe, later it was surgically amputated on 6th 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 [Fig. 2]. Occasionally she had attacks of mild pain in the feet and skin rashes. About 50 % improvement was seen at the end of hospital stay. Patient was discharged from the hospital after 17 days 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 when there is a 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 [12] 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 for one month (Table 4).

6. 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

**Fig. 2.** Condition of the foot after 10 days of treatment.**Table 4**
Guduchi Rasayana regimen.

Day 1	4 capsules in empty stomach early morning with water
Day 2	8 capsules in empty stomach early morning with water
Day 3–30	12 capsules in empty stomach early morning with water

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*, *G. rasayana*, *Shivagutika*, *Mahamanjistadi Kashaya*. Ulcer was managed with *Jayadi. taila* dressing. After two months of treatment foot ulcers healed completely and reduction in other symptoms was also observed (Fig. 3). 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.

7. Discussion

Systemic Lupus Erythematosus is a chronic autoimmune disease characterised by the presence of wide range of autoantibodies. Clinical presentation of 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) 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 [13]. 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 toes resulted. This complex presentation of 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 Rakta dusti pradhana Vatarakta*.

Samprapti vighatana (Treatment) in such condition can be achieved by relieving *avarana* and later correcting vitiated *vata* and *pitta* along with *Raktaprasadaka* 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 *Ushan veerya* (Hot in potency). It has *vatahara*, *rakta prasadaka*,

rasayana property which is indicated in *Vata-rakta avarana* condition [14]. Studies on *Tinospora cordifolia* have shown that it is having anti-inflammatory, anti-oxidant and immunomodulatory action [15]. Medicines *Kaishora guggulu* and *Balaguduchyadi taila* both contains *Guduchi* as major ingredient. *K. guggulu* and *A. 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* [16]. 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 *raktaprasadaka* property and indicated in *Raktadusti* conditions. *Rubiadin* [17] present in *Manjista* has antioxidant property. *Shiva gutika* contains *Shilajatu* (Asphaltum) 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 *mishraavarana* 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 *Jayadi 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.

8. Conclusion

Knowledge of both Ayurveda and Modern medical sciences are essential for better understanding of a disease and its treatment. Further study is needed on the efficacy of single herbal drugs administered in high doses mentioned under *Rasayana* context in the management of different diseases.

Conflict of Interest

None

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None declared

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Fig. 3. Improvement after complete Treatment.

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