



## AYURVEDIC MULTIMODAL INTERVENTION IN LEUCOCYTOCLASTIC VASCULITIS - A CASE REPORT

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### ABSTRACT

Leucocytoclastic vasculitis is a complex immune-mediated vasculitis of the dermal capillaries and venules. The annual incidence of biopsy-proven leucocytoclastic vasculitis is approximately 45 per million individuals. An agent used to treat vasculitis include corticosteroids and immunosuppressive drugs. There is no cure for leucocytoclastic vasculitis. A 61-year-old male patient with leucocytoclastic vasculitis was hospitalised and convinced of *Panchakarma* treatment. Based on the *Ayurvedic* concept, the diagnosis was considered *Vatarakta* with *Raktavritta vata*. *Raktamokshana*, *Virechana* and *Basti* were advised along with *Shaman* and *Rasayana* medications. The result was assessed using a numerical pain assessment scale to subjective and objective parameters. In the present case study, the diagnosis was established based on skin biopsy and clinical features, then treated successfully through multimodal Ayurvedic intervention.

**Keywords:** Leucocytoclastic vasculitis, *Raktavrutta vata*, *Vata rakta*, *Yashtimadhu vati*

### INTRODUCTION

Leucocytoclastic vasculitis is a complex immune-mediated vasculitis of the dermal capillaries and ven-

ules. It is characterised by leucocytic fragmentation and fibrinoid necrosis of arteries, veins and venules.

Rarely, in 30% of cases, extracutaneous manifestation may occur. Key clinical features of leukocytoclastic angiitis include palpable purpura, lower extremity location, and small vessel involvement. The diagnostic gold standard for this disease is a punch biopsy with direct immunofluorescence studies. Laboratory testing is required for immune-mediated disease. In systemic involvement, more extensive work is needed. The annual incidence of biopsy-proven leucocytoclastic vasculitis is approximately 45 per million individuals. The epidemiology of leucocytoclastic vasculitis varies with the underlying etiology. Leucocytoclastic vasculitis occurs in all ages and genders but typically presents in adults. Agents used to treat vasculitis include corticosteroids and immunosuppressive drugs. There is no cure for leucocytoclastic vasculitis.

Treatments are critical for helping to ease symptoms and hinder the progress of the disease. The present case study established the diagnosis based on skin biopsy and clinical features. The patient suffered from pain, burning, redness, mild itching, swelling and stiff feeling in the right lower extremity over the medial aspect of the lower part. The histopathological report showed leukocytoclastic vasculitis. The patient has been receiving treatment from an Allopathic expert since three years. The patient was treated with antihistamine and steroid. Relief and recurrence were observed for up to three years. The patient's clinical symptoms were not responding satisfactorily. The patient observed recurrent fluctuation in symptoms; hence, he assumed about alternative therapies. He was not responding to Ayurvedic, Homeopathy, Acupuncture, Naturopathy and Physiotherapy treatments. He approached to the Surajben Govindbhai Patel Ayurvedic Hospital, New V.V. Nagar and started treatment. He is responded to multimodal Ayurvedic intervention.

#### CASE PRESENTATION

A 61-year-old male patient approached for pain, burning, redness, mild itching and swelling over the medial aspect of the lower part of the right lower extremity. On examination, tenderness, hardness, pitting oedema and redness were noted. Aggravation of

redness and burning was observed in standing position and reduced to some extent in lying and foot-elevating positions. His vitals were normal and he had no associated disease or significant personal or family history. In the year 2020, this patient was suffering from the same clinical presentation in the left leg. He consulted in Allopathy hospital. He was not responding to routine treatment; hence, he was investigated for leucocytoclastic vasculitis. A histopathological report confirmed the diagnosis as a leucocytoclastic vasculitis. The patient was treated with Prednisolone 10mg 12 hourly, Levocetirizine 10mg 24 hourly, Ranitidine 150 mg 12 hourly, Folic acid 12 hourly and calamine lotion 12 hourly for Local application. Relief and recurrence was observed for up to three years. After discontinuation of medication, within a few months, recurrence of the same clinical presentation was observed; hence, the patient tried Ayurvedic, Homeopathy, Acupuncture, Naturopathy and Physiotherapy treatments without relief. The disease was progressive. He approached to the consultant of S.G. Patel Ayurvedic Hospital due to a reference from another patient.

#### INVESTIGATIONS

The patient was already investigated, and significant investigations are given here.

-ESR (20/02/2023): 44 mm/h

Skin biopsy (left leg) (7/12/2019): The histological findings favour leucocytoclastic vasculitis over the medial aspect of the lower one-third of the left leg.

-Venous doppler study of left lower limb (1/06/2023): Mild subcutaneous oedema was noted over the left ankle and foot region. There is no thrombosis in the visualised deep venous system of the left lower limb. Competent left saphenofemoral junctions. Competent perforators in the left lower limb as described above.

-USG of local part (1/10/2019): Fat at the site of swelling in the region of the medial aspect of the left lower leg appears hyperechoic, suggestive of panniculitis. Lumen of bilateral posterior tibial arteries and posterior tibial veins are visualised and show spontaneous flow. No evidence of thrombus. Mild athero sclerotic changes were noted in bilateral posterior tibial arteries.

After treatment, investigations regarding leucocytoclastic vasculitis were not advised to assess the changes as the patient was not ready for investigations. Improvement was evaluated by clinical examination.

**MANAGEMENT AND OUTCOME**

The patient was hospitalised and convinced for *Panchakarma* treatment. Based on the *Ayurvedic* concept, the diagnosis was considered *Vatarakta* with *Raktavritta vata*. *Raktamokshana*, *Virechana* and *Yoga Basti* were advised with *Shaman* and *Rasayana* medications.

*Raktamokshana*: Initially, *Siravyadha* was done from the affected site with the help of 20 number disposable needles with aseptic precautions and 50ml blood was removed.

*Virechana*:

*Purva karma*: *Snehapan* with *Mahatiktaka ghritha* was advised daily in increasing dose. 1<sup>st</sup> day 60ml, 2<sup>nd</sup>

*Shaman chikitsa*:

day 80ml, 3<sup>rd</sup> day 100ml, 4<sup>th</sup> day 120 ml, 5<sup>th</sup> day 140 ml for five days at 7 am. After *Samyak snigdha Lakshana*, whole body *Abhyanga* with *Guduchyadi* oil and *Dashamula Kwath Bashpa Sweda* was prescribed for three days.

*Pradhan Karma*: After *Purva karma*, 100 ml *Eranda Sneha* was given to the patient at 9 am. *Samyak virechana Lakshana* were observed without any disturbance in vitals.

*Paschat karma*: *Peyadi samsarjan Kram* was advised along with *Pathyapathya* for five days.

*Yoga Basti*:

After *Samsarjan Kram* of *Virechana*, *Yoga basti* was advised. Initially, Two *Anuvasana basti* (*Guduchyadi* oil 120ml) afterwards, alternate *Niruhabasti* (*Madhu* 100ml+*Lavan* 10gm+*Guduchyadi* oil 100ml+*Phala Kalka* 30gm+*Amritadi Kashaya* 600ml + *Gomutra* 100ml.) and *Anuvasanbasti* and at last one *Anuvasana basti*.

Table no.1

Sir no.	Kalpa	Dose	Sevan kala	Anupana
1	<i>Kaishor Guggulu</i>	1gm	7am-7pm empty stomach	Lukewarm water
2	<i>Guduchyadi Kashaya</i>	40ml	„	„
3	Tab. Tenstrim	760mg	„	„
4	<i>Eranda sneha</i>	15ml	10pm empty stomach	„
5	<i>Yashtimadhu vati</i>	6gm-9gm-12gm-15gm, increased 1gm per day up to 15 gm/day and continued.		
6	<i>Shatdhaut ghritha</i>	12 hourly for local application		

**RESULT:**

The result was assessed using a numerical pain assessment scale to subjective and objective parameters.

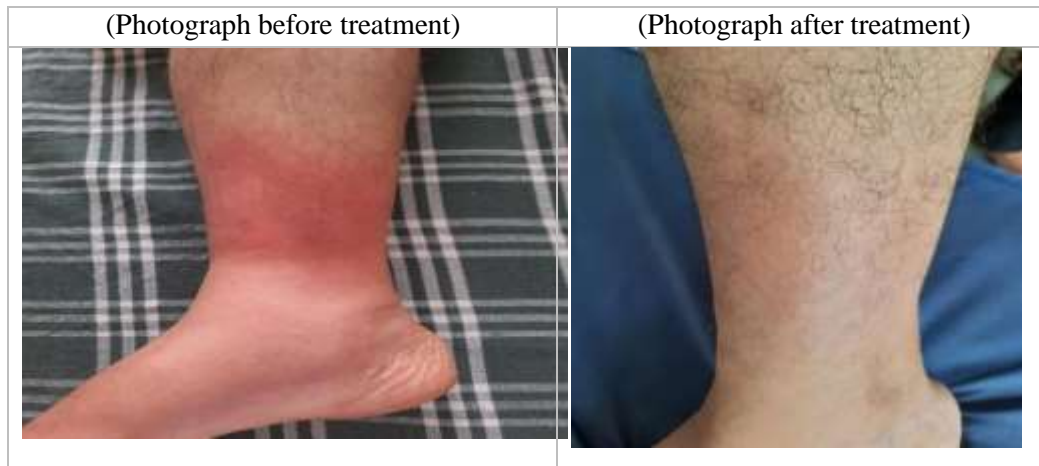
**Pain scale:**



Table no 2:

Sr. no.	Clinical presentation	BT	AR	AS	AV	AY	AYB	F
1	Pain in standing position	08	06	08	06	04	02	0
2	Pain in lying position	06	06	06	06	04	02	0
3	Burning in standing position	08	06	08	06	04	02	0
4	Burning in lying position	06	08	08	08	06	04	0
5	Redness in standing position	08	08	08	08	06	04	0
6	Redness in lying position	08	08	08	08	06	04	0
7	Redness in foot elevation position	06	06	06	06	04	02	0
8	Hardness and tenderness	08	08	08	08	08	02	0
9	Intermittent itching	02	02	02	02	02	02	0

(Abbreviations: BT- before treatment, AR- after *Raktamokshana*, AS- after *Snehan*, AV- after *Virechana*, AY- after *Yastimadhu vati* (15gm/day), AYB- after *Yogbasti*, F- follow up)



Initially, the pain and the burning grade was 08; after *Siravyadha*, it was reduced to 06 for one day only. Other clinical findings were unchanged after *Raktamokshana*. After *Snehapan*, clinical findings were unchanged. After *Virechana*, pain and burning grade was reduced to 06, but other findings remain unchanged. After increasing the dose of *Yastimadhu vati* (15 gm/day), pain and burning grade was reduced to 04, Redness grade in standing and lying position was reduced to 06, and foot elevation position was reduced to 04. Hardness and tenderness grade was reduced to 6. Other clinical findings were unchanged. After *Yoga Basti*, pain and burning grade was reduced to 02, Redness grade in standing and lying positions was reduced to 04, and in the foot elevated position, it was reduced to 02. Hardness and tenderness grade was reduced to 02. Intermittent

itching grade was same. *Yastimadhu vati* (15gm/day) and other medication were continued during monthly follow-up. During monthly follow up all findings were wholly relieved.

## DISCUSSION

In this case, the patient was vaccinated for corona disease. After the outbreak of corona, it was observed that the number of immune-mediated disease cases were significantly increased. This leukocytoclastic vasculitis is also immune-mediated; hence, treatment to normalise immune response was needed. This immune-mediated complex disease has leukocyte fragmentation and fibrinoid inflammatory necrosis of arterioles, capillaries and venules. This pathogenesis

in the lower extremities is suggestive of complex *Samprapti* of *Vatarakta* with *Raktavritta vata*; hence, considering these aspects, multimodal *Ayurvedic* treatment was given to the patient. The patient was not responding to various pathy treatments; thus, the *Raktamokshana*, *Virechana*, *Yogabasti* and *Rasayana* treatment approach was planned. *Siravyadha* was done from the affected site to remove *Dosha* and *Dushita rakta* through the near most route for symptomatic relief. After 50 ml *Raktamokshana*, burning, and pain grade was reduced to some extent for one day only. Next day to *Siravyadha*, *Snehapan* with *Mahatiktak ghrita* was started in increasing dose. *Mahatiktak ghrita* is having *Vata rakta* and *Pitta hara* properties. After *Samyak Snehapan*, *Abhyanga* was given with *Guduchyadi oil* and *Swedan* with *Dashamula Kwath Bashpasweda*. *Snehana* will help to soften the *Dhatu*s, detachment, liquefaction of abnormal *Dosha* and *Mala* from *Dhatu*s. *Swedan* helps in liquefaction of detached *mala dosha*, which is needed before *Shodhan*. After this preparation, 100ml *Eranda sneha* was given for *Virechana*. It helps in *Dosha Shodhana*, *Srotoshodhana* and relieve *Avaran*. After *Virechana Peyadi Samsarjan Kram* was given to improve *Agni* strength. After *Samsarjan Kram Yoga Basti* was advised to correct *Vatarakta dushti*. *Guduchi* is *Vatashonita Vibandha haranam*, *Tridosha shaman*, and *Rasayana*, hence preferred in *Shaman* treatment. Its *Rasayan* effect will improve immune response. *Yashtimadhu* is having *Pitta Anil Asrajit* and *Vranashodhana* property. It also contains glycyrrhizic acid, which having an anti-inflammatory effect similar to glucocorticoid and mineralocorticoid, which helps to reduce leucocyte fragmentation and fibrinoid necrosis of arteries, capillaries and venules. Its *Rasayan* effect improves the immune response; hence, *Yastimadhu* was used as an essential drug, and gradually, the dose was increased up to 15gm per day. *Eranda Sneha* was employed as a *Sneha virechana*. It has *Vatanulomana* and *Srotoshodhana* effects. *Tenstim* has *Medhya* property, which improves *Satva guna* of *Mana* and helps to relieve stress. *Shatadhauta ghrita* was useful for local application. It is having *Dahaprashaman* and *Vata*,

*Rakta* and *Pitta prashaman* effect. The patient improved gradually. Good lifestyle and *Vatarakta Pitta prashamana* light diet and *Rutucharya* were advised during and after treatment for cure and prevention. After treatment, the patient's clinical examination, kidney and liver function tests were advised and were normal hence treatment did not have any adverse effects after prolonged use.

## CONCLUSION

Leucocytoclastic vasculitis can be managed by considering complex *Samprapti* of *Vatarakta* with *Raktavritta vata* through multimodal *Ayurvedic* intervention without adverse effects. Further evaluation in many patients is needed to bring some concrete conclusion.

## DECLARATION OF PATIENT

The authors certify that they have obtained appropriate patient consent. The patient has consented for his images and other clinical information to be reported in the journal. The patient is willing to expose his identity, photos, and clinical information for the well-being of patients, even though we have tried to keep it concealed.

## PATIENTS PERSPECTIVE

I was healthy before May 2020. Later on, my health problem started. An itching and burning sensation in the left leg above the ankle joint was in progress; gradually, hardness, tenderness and reddish discoloration emerged. My symptoms were aggravated while standing and reduced to some extent in the supine position. I consulted an *Ayurvedic* doctor in June 2020 and took medicine but did not get relief. Then, I consulted the homoeopathic doctor, but there was no relief. After that, I consulted an Allopathic doctor in December 2020, and he advised a blood report and skin biopsy, venous Doppler study and USG of the affected part. After the report, he diagnosed as leukocytoclastic vasculitis. I had taken treatment for that and got relief within three months. Again, a recurrence occurred in the Left leg in December 2022, and he started the same treatment. Again, the same problem started in my Right leg in May 2023, and I realise that this steroid treatment is not curative, and

after repeated use, it has adverse effects. My friend told me about a good experience at S G Patel Ayurvedic Hospital; hence, I visited this hospital to consult an Ayurvedic doctor for the same problem. The doctor started *Panchakarma* and *Rasayana* treatment. Gradually, my pain severity was reduced

within 30 days. After two months, my other symptoms were also reduced, and the doctor educated me about prevention of recurrence.

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**Conflict of Interest: None Declared**

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