



## Case Report

An ayurvedic approach in the management of *Siragatavata* complicated with *Dusta Vrana*Sarvesh Kumar Singh <sup>a,\*</sup>, Kshipra Rajoria <sup>a</sup>, Sanjeev Sharma <sup>b</sup><sup>a</sup> Department of Panchakarma, National Institute of Ayurveda, Jaipur, Rajasthan, India<sup>b</sup> Director, National Institute of Ayurveda, Jaipur, Rajasthan, India

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## ABSTRACT

Vasculitis is chronic inflammation resulting in necrosis of blood vessels due to narrowing or occlusion of the lumen. Here we present a case of 28 yrs old woman suffering from medium size vessel vasculitis since childhood. The patient had purulent skin lesions at lateral aspect of lower limbs, fatigue and pain all over the body. There was complaint of bluish discoloration of extremities, especially in winter season. The patients had history of similar skin lesions in past which were treated by allopathic treatment, but this treatment failed in meeting the expectations of patient. These lesions were not responding to the contemporary treatment since a year. The Ayurvedic diagnosis of the case was established as *Siragatavata* complicated with *Dusta Vrana* (~infected wound). She was treated with *Vrana Prakshalana* (douching of skin ulceration) with *Triphala Kwath* for initial 15 days followed by *Virechana Karma* (purgation therapy) with *Tilvaka Ghrita* in 20 g dose. *Erandmooladi Niruha Basti* (enema mainly with decoction) with *Bala Taila* (oil) *Anuvasan Basti* (enema with oil) for eight days in *Yoga Basti Krama* (eight days order of enema) was administered after *Virechana Karma*. The Ayurvedic oral drugs [*Ashwagandhaveleha*-10 g, *Jwarhar Kashaya*- 40 ml, *Shatavari Churna* (powder)-3 gm, *Vidanga Churna*-2 g *Kaishor Guggulu*-500mg and *Shilajatwadi Loha*-500mg] twice a day for 12 months were also administered in the case. Skin lesions healed after a month of treatment and there was no relapse in more than 18months follow up. Patient was lean and thin and underweight at the beginning of the treatment. There was 4 Kg increase in weight during the treatment. There were no complaints of paresthesia, pain and fatigue after 18 months of treatment. No bluish discoloration was noted during this period. Presently patient is stable with Ayurvedic medications. The case study shows that medium size vessels vasculitis may be managed with *Panchakarma* procedures and Ayurvedic medication with satisfactory outcome. However, large sample studies are required for definitive conclusion.

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## 1. Introduction

Vasculitis is defined as inflammation and necrosis of blood vessels, resulting in narrowing or occlusion of the lumen [1]. It is predominantly an arterial disease. It can affect children, adults and older person. Vasculitis can affect large sized vessels, middle sized vessels, and small sized vessels and nomenclature and classification are done accordingly. Size of blood vessel serves as the basis for one of the classification of vasculitic syndromes. Takayasu arteritis, giant cells arteritis; are large size vessels vasculitis. The medium-size-vessels vasculitis (MNV) category includes polyarteritis nodosa (PAN),

Kawasaki disease (KD) and cutaneous polyarteritis nodosa (CPAN). There is controversy to consider CPAN as a separate entity or part of the systemic PAN spectrum. The small-vessel category is usually subdivided into granulomatous and nongranulomatous disorders. Wegener's granulomatosis (WG) and Churg-Strauss syndrome are the granulomatous diseases of small vessel category. Microscopic polyangiitis (MPA), the leukocytoclastic vasculitides such as Henoch-Schonlein purpura (HSP), hypocomplementemic urticarial vasculitis and isolated cutaneous leukocytoclastic vasculitis are the non-granulomatous disorders of small vessel category. Vasculitides can also affect various-sized vessels and these includes Behçet disease, isolated vasculitis of the central nervous system, vasculitis secondary to connective tissue diseases, vasculitis associated with infection, Cogan's syndrome and others [2]. Being a rare disease, no epidemiological data is available for vasculitis in India. These disorders are less

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than 1% cases encountered in rheumatology clinics in India. Out of 1064 patients in these clinics 94 patients (8.83%) were suffering from PAN, 13 patients (1.22%) from CPAN and 05 patients (0.46%) were suffering from KD. Most cases 232 patients (21.80%) were suffering from HSP. Vasculitis disorders are rare in Indians and often under diagnosed and under reported [3]. The estimated annual incidence of Kawasaki disease was 5.5 per 100 000 in children younger than 5 years, and was highest in Indian subcontinent Asian children (14.6 per 100 000). High dose steroid, cytotoxic agents, infliximab and rituximab are the drugs used to treat MVV. However some cases have been reported which were unresponsive to conventional therapy [4]. Here we present a case of MVV, where relapse of symptoms were observed with conventional therapy. This patient was successfully managed with Ayurvedic management and *Panchakarma* therapies. *Siragatavata* (~vitiated *Vata dosha* affecting the blood vessels) complicated with *Dusta Vrana* (~infected wound) was considered as an *Ayurvedic* diagnosis for the case and the patient was treated on general lines of management of *Vata Vyadhi* (~various neuro-musculoskeletal diseases).

## 2. Patient information

28 years old woman attended the Panchakarma outpatient department of National Institute of Ayurveda Jaipur on 4th August 2017 for complaints of ulceration on both lower limbs and pain in all over the body. Patient was suffering from the disease since 9 years. There was the history of erythematous mildly tender macule over right lower lateral leg which had ulcerated over 15 days. There was history of right lower abdominal pain which was found to be iliac perforation by exploratory laparotomy. It was repaired and patient received a course of antibiotic for the same. Gradually ulcer healed over next two months with hyper pigmented atrophic scarring. At a lapse of three years, she had similar sequence of events at the same site. There was ulceration followed by lower abdominal pain and burning micturition at a month gap. This time she was diagnosed and treated as typhoid with urinary tract infection with antibiotics and the ulcer healed over next one month. The third episode occurred in June 2013 when an erythematous macule developed at the same site followed by ulceration along with three more ulcers over the right leg and a single ulcer on left leg. It was diagnosed as livedoid vasculitis by private practitioner and Dapsone 100 mg OD for 20 days was administered. There was 50% relief in pain with the medication but sizes of the lesions remain persistent. It was diagnosed as CPAN by a dermatologist on the basis of skin biopsy and the patient was treated with Omnacortil 40 mg along with Folic acid 10 mg/week 3 doses. This management provided relief in pain and cessation in appearance of new lesions. She also had bluish discoloration of toes, numbness and pallor of fingers in winters. There was no history of hematuria, hematochezia and hypertension. Patient had consulted in All India Institute of medical sciences (A.I.I.M.S.) New Delhi in September 2013 for the same episode of ulceration and was diagnosed as suffering from MVV. Pulse treatment with Dapsone was administered in the patient on regular interval for one year. There were frequent relapse and remission of the symptoms during this management. Patient was treated in A.I.I.M.S. till August 2017.

### 2.1. Clinical findings

Patient was lean and thin with body weight of 52 kg and height of 155.7 cm. She had *Vata Pitta Prakrati* with *Avar Sara* (suboptimum body tissue) and *Avar Samhanana* (suboptimum body built). She also had *Avar Vyayamshakti* (least capability to carry on physical activities), *Madhyam Aharashakti* (medium food intake) and *Madhyam Jaranashakti* (medium digestive power).

Neurological examination, cardio respiratory, musculoskeletal and genitourinary system examinations were normal. On skin examination ulceration and pus discharge was observed from both lower limbs. There were macules situated over lateral and medial aspect of right lower leg and medial aspect of left lower leg [Figs. 1 and 2]. There was tenderness present around these areas. A transverse surgical scar was present on lower abdominal area.

On investigations, ANA, Anti ds DNA, urine 24 h protein, USG Doppler lower limb and USG abdomen were found to be normal except for hepatomegaly. CT angio abdomen shows normal abdominal aortic angiogram. Skin biopsy dated September 10, 2013 at AIIMS New Delhi was suggestive of MVV.

## 3. Timeline

Details of the case study and follow up are given in Table 1.

## 4. Diagnostic focus and assessment

Episodes of ulceration and pus discharge from macules at both lower limbs, healed scar, history of bluish discoloration of extremities, history of abdominal pain, history of iliac perforation, onset of symptoms from childhood, general lethargy, pain in whole body, lean and thin body with suboptimal weight were suggestive of MVV.

Patient was already diagnosed as a case of MVV on the basis of the biopsy of lesion in 2013 at AIIMS New Delhi.

All these symptoms were overlapping with PAN and CPAN. History of patient showed that the symptoms are not confined only to skin areas. There was history of iliac perforation which may be due to bursting of aneurysm. Hence the diagnosis of MVV was considered for the case which comprised of both PAN and CPAN.

Connective tissue disorders and deep vein thrombosis were the differential diagnosis of this case. ANA, Anti ds DNA and urine 24 h protein were within normal limit and USG abdomen was also within normal limit except for hepatomegaly. Hence, connective tissue disorders were rule out. Normal USG of lower limbs rules out the possibility of deep vein thrombosis.

*Manda Sharira Ruja* (mild body pain) *Shopha* (mild inflammation in vessels) *Shosha* (atrophy/weight loss) *Spandana* (fasciculation) in the body, *Supta Sira* (pulse less artery), *Tanavyo Sira* (~spasm of vessels leading to reduction of lumen/thinning of vessels/stenosis), and *Mahat Sira* (dilatation of vessels/aneurysm) are the



Fig. 1. Pus discharge from lesion at right lower limb before treatment.



Fig. 2. Lesions at right lower limb before treatment.

manifestation of the *Siragatavata* [5]. *Shoola* (abdominal pain), *Aakunchana* of *Sira* (spasm of vessels) and *Puranam* of *Sira* (filling/dilatation of vessels) are also the distinguish features of *Siragatavata* [6]. Pathology and presentation of MVV is similar to *Siragatavata* hence, *Siragatavata* was considered as Ayurvedic diagnosis of the case.

As the lesions were chronic in nature and confined to specific areas. These were considered as *Dusta Vrana*. *Dusta Vrana* is infected wound and it secretes different color fluid according to involved *Doshas*. Here the root cause of these *Vrana* in MVV may be due to injury of cutaneous micro vessels resulting in impairment of blood flow and consequent focal ischemia leading to skin ulcers. It is indicated in Ayurvedic classics that improperly treated

or untreated chronic *Vata Vyadhi* or *Avrita Vata* may lead to development of complications of *Hrida Roga* (~heart diseases) *Vidradhi* or *Vrana* (abscess) *Pliha* disorders (hepatic and spleen enlargement) *Gulma* (various inflammatory intestinal disorders) and *Atisara* (diarrhea)[5 verse236]Complications of *Dusta Vrana* and *Pliha* are also associated in this case of *Siragatavata*. Hence diagnosis of MVV with presentation of chronic lesions is comparable with Ayurvedic diagnosis of *Siragatavata* and its complication of *Dusta Vrana*.

## 5. Therapeutic intervention

The lesions and the disease were treated on the line of management of *Siragatavata* and its complications. No specific treatment advised for *Siragatavata* in classical texts but disease is described in context of *Vata Vyadhi*. Hence, general line of treatment of *Vata Vikara viz. Snehana* (oleation), *Svedana* (sudation) *Virechan* (purgation), *Asthapana* (enema mainly with decoction) and *Anuvasana Basti* (oily enema) was adopted [7]. These procedures are also the line of treatment for *Vrana* as described in *Shshtiupakrama* (60 procedures to treat wound) [8]. Patient was treated with *Vrana Prakshalana* (douching of skin ulceration) of *Triphala Kwath* for first 15 days along with oral medications - *Ashwagandhaveleha*-10 g, *Jwarhar Kashaya*-40ml, *Shatavari Churna* (powder)-3 g, *Vidanga Churna*-2 g, *Kaishor Guggulu*-500mg and *Shilajitwadi Loha*-500mg for twice a day (Table 2). After initial oral treatment of one month, these oral medications were stopped for *Virechan Karma*. *Mahatiktaka Ghrita* was given for *Snehana* (internal oleation) for seven days followed by *Abhyanga* and *Svedana* for next 4 days. *Virechan Karma* with *Trivrita Ghrita* in 20 g dose was done on 11th days. *Sansarjana Krama* was adopted for next 7 days. The oral medication except *Jwarhar Kashaya* were restarted from 9th day of *Virechan Karma* and continued till present date. *Erandmooladi Niruha Basti* (enema mainly with decoction) with *Bala Taila* (oil) *Anuvasan Basti* (enema with oil) in *Yoga basti krama* was administered from 9th day of *Virechan Karma*

Table 1  
Timeline.

Year	Incidence/intervention
1995–1997	Patient suffered from continuous abdominal pain and treated for suspected abdominal tuberculosis.
20/03/2009	Patient had acute pain in abdomen for four to five days which lead to sudden loss of pulses and syncope. Patient was operated for suspected intestinal perforation.
05/04/2009	Patient had similar episode and was re-operated. This time it was an iliac perforation.
July 2009	Patient again felt acute abdominal pain
September 2009	Eruption of mildly tender macule over right lower lateral leg with ulceration. These lesions did not healed completely. When one lesion healed caused eruption of similar lesion at some distance. These lesions took two months for healing with hyperpigmented atrophic scarring.
2012	Similar sequence of events appeared resulting in similar ulcer scarring. After a month of ulceration onset, patient had episode of lower abdominal pain and burning micturition. She was treated for typhoid and urinary tract infection.
June 2013	Patient had erythematous macule at the same site followed by ulceration and three more ulcers over the right leg followed by another ulcer on left leg.
September 2013	Patient was admitted in AIIMS New Delhi. Diagnosis of medium vessels vasculitis was confirmed with biopsy of lesion.
September 2013 to September 2014	Dapsone in pulse was administered for three days in a month and was continued for 12 months in similar manner along with this oral steroid Wysolone in 50 mg/day dose for three months was administered.
January 2014	Lesion completely resolved and drug doses were tapered.
January and February 2015	Lesion again reappeared at same site in right leg. The ulcer remained unresolved over a period of one year.
2016	Patient opted for Ayurvedic treatment at Ayurvedic hospital in Jaipur and got some relief in symptoms in 15 days treatment. Then she opted for National institute of Ayurveda in the hope of better treatment.
2017	She was treated with Ayurvedic oral medications – <i>Ashwagandhaveleha</i> -10 g, <i>Jwarhar Kashaya</i> -40ml, <i>Shatavari Churna</i> (powder) -3 g, <i>Vidanga Churna</i> -2 g, <i>Kaishor Guggulu</i> -500mg and <i>Shilajitwadi Loha</i> -500mg twice a day initially for one month, <i>Vrana Prakshalana</i> (douching of skin ulceration) with <i>Triphala Kwath</i> for first 15 days. After a month of oral treatment, the patients was subjected to <i>Snehapana</i> with <i>Mahatiktaka Ghrita</i> (internal oleation) for seven days followed by <i>Abhyanga</i> and <i>Svedana</i> for next 4 days followed by <i>Virechan Karma</i> with <i>Trivrita Ghrita</i> on 11th days. <i>Sansarjan Krama</i> was adopted for next 7 days. From 9th day after <i>Virechana</i> Patient was subjected to <i>Erandmooladi Niruha Basti</i> (enema mainly with decoction) with <i>Bala taila</i> (oil) <i>Anuvasan Basti</i> (enema with oil) for eight days in <i>Yoga Basti Krama</i> (eight days order of enema) along with oral medication except <i>Jwarhar Kashaya</i> which were continued for 12 months and still continued.[Table 2]
August 04, 2017	Birmingham Vasculitis Activity Score (BVAS-2010) for disease activity of vasculitis was 22 at the time of starting of treatment and it changed to 08 after completion of one month. BVAS-2010 score was 06 on January18, 2019
April 1,2019	There was no eruption of any lesions since last 18 months. Patient had no complaints regarding her health. BVAS-2010 score remained constant.

for eight days. No concomitant conventional medication was administered during this whole treatment duration.

## 6. Follow up and outcome

Patient's condition was assessed on Birmingham Vasculitis Activity Score (BVAS-2010) for disease activity of vasculitis [9]. Score was 22 at the time of initiation of treatment and it changed to 08 at the end of a month. It further reduced to 06 following Panchakarma procedures. Patient lesions were healed within first 15 days of treatment [Figs. 3–5]. Total four kg weight of patient was increased during entire treatment duration. Patient was asymptomatic on fortnightly assessment till January 18, 2019 and BVAS-2010 score remain 06 during this entire duration.

## 7. Discussion

MVV disease closely resembles *Siragatavata* and its complications. The disease, *Siragatavata* is included in *Vata Vyadhi*. General line of treatment of *Vata Vikar* viz. *Snehana* (oleation), *Svedana* (sudation) *Virechan*, *Asthapana* and *Anuvasana Basti* are also included in *Shasti Upakrama*. Hence these procedures may effectively manage the *Siragatavata* and its complication- *Dusta Vrana*. *Virechana Karma* is also applicable in diseases related to *Raktavahini*[7 chapter 24 verse 18] *Virechana Karma* is also indicated in

*Dirghakalanubhandhi Vrana* (chronic wound) vitiated with *Vata-Pitta Doshas*. *Erandamuladi Niruha Basti* is helpful in treating *Vata Kaphaja* (diseases due to *Vata Dosha* and *Kapha Dosha*) disorders, *Pakshaghat* etc[5 *Siddhi Sthan* chapter 3 verse 41] It has *Srotosodhan* (purification of micro channels) properties. It may be helpful in treating the occlusion of vessels with its *Srotosodhaka* properties. *Basti Karma* is indicated in rough and more painful *Vata Dusta Vrana* (wound vitiated with *Vata Dosha*) situated mainly in lower body parts which were present in this case. *Shilajawadi Loha* is useful in *Raktaksharana Yukta Rajyakshama* [10]. Patient had suboptimal weight. She also had the history of tuberculosis which has resemblance with *Rajyakshama*. *Shilajeet*, the main contents of *Shilajawadi Loha*, acts as *Rasayana* (immune modulator) which is essential in treating chronic *Vata Vyadhis*[5 verse 241.] *Mahatiktaka Ghrita* is beneficial in *Kustha* (skin disorders), *Raktapitta* (haemorrhagic disorders), *Raktavahinigit Roga* (diseases of blood vessels), *Visphot* (eruption), *Vatarakta* (various rheumatic disorders), *Hridayaroga* (various heart diseases) and *Mahavikar* (incurable diseases or disease with great intensity). *Kaishor Guggulu* is indicated in *Kustha* (skin disorders), *Swayathu* (edema), *Udararoga* (G.I.T. disorders, abdominal colic), *Panduroga* (anemia) etc and useful in all type of *Raktaja rogas* (diseases related to blood)[10 Chapter 27, Verse 104–113] Thus it can alleviate the various manifestation of MVV. *Jwarhar Kashaya*, mostly comprises of *Tikta Rasa* (bitter taste) dominant herbs, is effective

**Table 2**  
Panchakarma procedures and Ayurvedic medications given to a case Medium vessels vasculitis.

Panchakarma procedures	Method of preparation	Method of application	Days of treatment
<i>Virechana Karma</i>		<i>Mahatiktaka Ghrita</i> was given for <i>Snehana</i> (internal oleation) for seven days followed by <i>Abhyanga</i> with <i>Bala taila</i> and <i>Sarvanga</i> (whole body) <i>Vashpa Svedana</i> for next 4 days. <i>Virechan karma</i> was done with <i>Trivrita Ghrita</i> in 20 ml dose on 11th days. <i>Sansarjana krama</i> was adopted for next 7 days.	18 days
<i>Bala Taila Anuvasan basti</i> <i>Erandamuladi Niruha Basti</i>	75 ml of oil mixed with rock salt <i>Saindhava</i> salt 10 g, honey 50 g, <i>Ashvagandha taila</i> 75 ml, <i>Pancatikta Ghrita</i> 50 ml and decoction of <i>Erandamuladi drugs</i> 400 ml. Powdered rock-salt is added to honey and stirred. Then <i>Taila</i> and <i>Ghrita</i> are added to this mixture and again stirred. Then paste of <i>Shatahwa</i> ( <i>Anthum sowa Kurz</i> ) followed by decoction is to be added and mixed properly to make homogenous emulsion, and heated gently in a water bath	Given after meal with <i>Basti Yantra</i> . Given before meal with <i>Basti Yantra</i> .	Total 05 <i>Basti</i> in <i>Yoga Basti</i> manner Total 03 <i>Basti</i> in <i>Kala Basti</i> manner
<i>Vrana Prakshalana</i> (douching of skin ulceration)		Doucing of ulcers were done with luke warm <i>Triphala Kwath</i> (decoction)	15 days
Name of the drug used orally	Composition	Dose (twice a day)	Days of treatment
<i>Vidanga Churna</i>		3 g	18 months
<i>Shatavari Churna</i>		3 g	18 months
<i>Jwarhar Kashaya</i>	Each of <i>Mustak</i> ( <i>Cyperus rotundus</i> L.), <i>Rakta Chandana</i> ( <i>Pterocarpus santalinus</i> L.F), <i>Tulasi</i> ( <i>Ocimum sanctum</i> L.), <i>Kutaja</i> ( <i>Holarrhena antidysenterica</i> (Roth)A.DC., <i>Nimba</i> ( <i>Azadirachta indica</i> A.Juss.), <i>Haridra</i> ( <i>Curcuma longa</i> L.), <i>Kiratitakta</i> ( <i>Swertia chirayita</i> (Roxb.ex.Flem.) Kar.), <i>Madhuyasti</i> ( <i>Glycyrrhiza glabra</i> L.), <i>Kutki</i> ( <i>Picrorhiza kurroa</i> Royle ex Benth.), <i>Guduchi</i> ( <i>Tinospora cordifolia</i> Willd) <i>Amalaki</i> ( <i>Emblia officinalis</i> Gaertn), <i>Haritaki</i> ( <i>Terminalia chebula</i> Retz. and Willd.) and <i>Vibhitak</i> ( <i>Terminalia bellirica</i> Roxb) in equal amount	40 ml	15 days
<i>Shilajawadi Loha</i>		500 mg	18 months
<i>Kaishor Guggulu</i>		500 mg	18 months
<i>Ashwagandhaveleha</i>		10 g	18 months





Fig. 3. Healed lesions at right lower limb after treatment.



Fig. 4. Healed lesions at right lower limb after treatment.



Fig. 5. Healed lesion at left lower limb after treatment.

in *Sravi Vrana* (purulent lesion) like condition and was helpful in the initial stage of lesion healing [11]. *Vrana Prakshalana* (described in *Shashtiupkrama* as *Parisheka*-a type of liquid pouring on body) with *Triphala Kwath* was also effective in purification and the healing of lesions. *Triphala* have antibacterial, wound healing, and antioxidant activities [12]. *Tilvaka Ghrī* is indicated for *Virechan* in *Vata Vyadhis* [8 Chikitsa Sthan, chapter 4, verse27] and can be used internally in treatment of lean and thin patients suffering from wounds. *Shatavari* is *Balya* and *Rasayana* [13]. *Vidanga Churna* is *Krimighna* (antihelmintic or antibacterial) and also works as *Rasayana* [13 *Haritakyadivarga* Verse.112] As the MVV was treated as *Vataja Vyadhi* hence this integrative approach of *Panchakarma* treatment and *Ayurvedic* oral medication was helpful to mitigate the symptoms of the disease. The disease was considered as the chronic *Vata Vyadhis* hence longer duration of treatment with *Rasayana* was required in this case. No worsening

of any symptoms and remissions of lesions was observed in this case during more than one and half year follows up. This is comparable in this patient with allopathic medications in the past. Furthermore, no adverse effect was observed in the management which is unlikely with immunosuppressive medications: Dapsone and steroids. This case study showed the good efficacy and safety of Ayurvedic management. Hence it is concluded that Ayurvedic management may be beneficial in the management of MVV and ulcerative lesions. This case study also throws the light on the alternative possible management of MVV through the management of *Siragatavata*.

## 8. Conclusion

The case study shows that MVV was treated with Ayurvedic medication and *Panchakarma* procedures with satisfactory outcome. Large sample studies are required to be done to confirm these findings and establish the place of *Ayurvedic* line of treatment in the management of MVV.

## 9. Patient consent

Written permission for publication of this case study had been obtained from the patient.

## 10. Patient's perspective

Patient was satisfied with the provided treatment.

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None.

## Conflict of interest

None.

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