

CASE STUDY

Ayurvedic Management of Very Early Diagnosis of Systemic Sclerosis: A Case Study

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ABSTRACT

Systemic sclerosis is a chronic autoimmune disease, heterogeneous and in the early phase it is difficult to diagnose. Current classification criteria of systemic sclerosis has low sensitivity to identify the skin involvement in patients that leads to delay on the therapy that is often started with the irreversible condition of internal organ involvement. So fight against SSc i.e systemic sclerosis is a big challenge, even in diagnosing at the earlier stage so as to treat patients since the earliest phases of disease.

In this paper a patient diagnosed with VEDOSS i.e very early diagnosis of systemic sclerosis which was managed successfully by *Ayurveda* treatment was discussed. A 68 year old male patient came to hospital with complaint of skin rash over face associated with itching and burning sensation since 1 year.

He was diagnosed as VEDOSS with relevant investigations from higher medical centre and was under medications. He noticed aggravation of symptoms once he stops taking the prescribed medicines and when the rash over his cheeks showed prominent appearance, opted for *Ayurveda* treatment. The condition was diagnosed as disease *Utthana Vatarakta* according to *Ayurveda*. Treatment was planned by selecting suitable oral medicines, suitable *panchakarma* procedures. Treatment was successful with follow up medications every month.

Key Words *Autoimmune, Symptoms, Systemic Sclerosis, Vatarakta, Dosha*

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INTRODUCTION

Systemic sclerosis is a rare and complex autoimmune disease. A connective tissue disease which is also known as scleroderma. Main characteristics of this disease are autoimmunity, vasculopathy, fibrosis of the skin and internal organs. Although the systemic sclerosis shows relatively a low prevalence the burden of disease is substantial. Among all the rheumatic diseases systemic sclerosis has highest mortality rate. This

disease poses the heterogeneous expression and turned out to be a big challenge to both the patient and clinician particularly in predicting the development of internal organ involvement¹. In literature VEDOSS is a terminology used to indicate the preclinical phases of SSc. VEDOSS refer to stages prior to definite diagnosis of SSc. VEDOSS patients may exhibit few symptoms of SSc at time of their presentation (eg; Raynaud phenomenon [RP], positive anti-nuclear antibody

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[ANA], abnormal nailfold capillaroscopy), Telangiectasia².

CASE REPORT - PATIENT INFORMATION

A 68 year old male from Brahmavara, (Udupi) who is a business man came to SDM Ayurveda Hospital Udupi with complaints of skin rash over face associated with itching and burning sensation since 1 year (at the age of 67 years). Patient is known case of hypertension since 2 years and under medication. There was no past history of diabetes mellitus, tuberculosis, fever, trauma. He used to take both vegetarian and non vegetarian diets. There was no history of alcohol or smoking.

Ethical considerations: Nothing significant

Family history: nothing significant

Co-morbidities: Known case of hypertension and under medication

Lifestyle: Normal

Substance abuse: nothing significant

CLINICAL FINDINGS AND INVESTIGATIONS

Patient was apparently normal before but then he gradually he started noticing reddish discoloration over his cheek along with severe burning sensation and itching.

Itching aggravates during night and mid day time, whereas the burning sensation increases during night time. A day before approaching our hospital he noticed watery discharge through the rash over the cheeks. Slightly raised reddish discoloration over cheeks, nose

[Malar rash or Butterfly rash Fig.1]. Tightening of the skin found over face. Patient was not able to retract his lower eye lid [Ingrams sign]. Slightly raised reddish rash over medial aspect of knee joint present. Itching and watery discharge through the lesion over face was present. Radial furrowing of the anterior lip along with the thinning of the upper lip were seen [Fig.2]. Scaly plaques over nasolabial fold and upper lip were significantly found. During the course of the treatment he had developed with the watery discharge from bilateral eyes indicating the Blepharitis also seen. Basic investigations conducted in our hospital showed Hb%: 14gm, TC : 7,600 cells/cu.mm, ESR: 30mm/1 hour.



Figure 1 Malar rash over the bilateral cheeks before treatment



Figure 2 Radial furrowing of anterior lip and nasolabial fold before treatment



Figure 3 After 10 days of treatment

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Patient had approached took treatment from a higher medical centre 2 years back with the complaints of itchy red lesion over face, ears, bilateral legs, multiple joint pain, pedal edema where he diagnosed as Very early diagnosis of systemic sclerosis

General Examination

Patient's overall health status was good, vitals were normal. Pitting edema found on bilateral foot. His appetite was normal with history of occasional indigestion. Bowel evacuation and micturition was normal and sleep was disturbed due to itching.

Ashtavidha Pareeksha:

Nadi- Vatapitta

Mala-Prakruta

Shabda- Prakruta

Jihva-Eshat Shyama

Mutra-Prakruta

Druk-Prakruta

Akruti-Madhyama

Sparsha-Anushna

Systemic Examination

Respiratory system- Air entry bilaterally equal,
Cardiovascular system- S₁S₂ Normal, Central nervous system-patient was conscious and well oriented about the date, time and place.

DIAGNOSTIC ASSESSMENT:

Patient was diagnosed as Systemic Sclerosis (SSc) with relevant investigations in a higher medical centre like skin biopsy, anti nuclear antibodies confirming the diagnosis. Since the patient not satisfied with the treatment, came to seek Ayurveda treatment.

SSc being identified as an autoimmune pathology involves multiple systems of the body, primarily skin and joints. Incorporating the principles of *Dosha-Dushya* in the manifestation of the disease, such condition can be diagnosed as *Vata* dominant disease³. According to *Ayurveda*, diseases will manifest because of imbalance in *Triosha*. Further this imbalanced and vitiated *Dosha* affect *Dhatu* [basic tissues of the body] resulting in manifestation of disease. Indulging in causative factors leads to vitiation of *Vata*, *Pitta*, *Kapha*. The disease *Vatarakta* is described as one of the diseases of *Sammurchana* of *Vata* and *Rakta*. It is *Vata pradhana Tridoshaja vyadhi* where *dushya* affected is *Rakta*. Hence the disease is *Vatarakta* where both *Vata* and *Raktha* are vitiated by distinct etiological factors⁴. The basic pathology includes *Margavarana* of *Vayu* by *Rakta*. Based on the involvement of *Dhatu*s *Vatarakta* can be 2 type i.e *Gambheera* and *Uttana*. On the basis of *Lakshanas* diagnosis was made as *Uttana Vatarakta* mainly *Kandu, Daha, Ruk, Toda*, and *Sphurana* type of *Vedana Vishesa*, *Sirayaama*, *Shyaava* and *Taamra varnata* of *Twak*⁵.

Pathogenesis of *Vatarakta* was described in (Table.1)

Table 1 Vatarakta Samprapti or pathogenesis according to Ayurveda

Nidana (Aetiology)	<i>Ati vyayama, Katu lavana atisevana, Ratri jagarana</i> occasionally <i>Achankramanasheela</i>
Dosha dushti	<i>Vata prakopa</i> : Pain in knee joints, <i>Pitta</i> : Burning sensation
hatu	<i>Rasa</i> : Pitting edema over bilateral foot <i>Rakta</i> : Reddish discoloration, Burning sensation, Itching <i>Asthi</i> : Involvement of joints

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Agni	<i>Jataragni</i> : Manda (weak), <i>Dhatwagni</i> : <i>Maandya</i> of <i>Rasa</i> & <i>Rakta</i>
Srotodushti	<i>Sangha</i>
Poorvarupa	Multiple joint pain, Pedal edema, Reddish itchy rashes over face
Roopa	Joint pain, Skin lesions, Burning sensation, Itching
Upadrava	<i>Gambheera vatarakta</i> , <i>Mamsakotha</i> , Blackish discoloration, Gangrene of toes
Vyadhi vinischaya	<i>Vatarakta</i>
Type	Involvement of superficial <i>dhatu</i> like <i>Rasa</i> , <i>Rakta</i> and were producing reddish skin lesions, burning sensation .This condition is known as <i>Uttana</i> <i>vatarakta</i>

THERAPEUTIC INTERVENTION

Treatment was planned based on the principles of *Vatarakta Chikitsa* aimed to control the vitiated *Vata*, *Pitta* and to normalize *Raktadushti*. As the patient also showed some *Lakshanas* of *Ama*, treatment was executed on three lines. 1. Selection

Table 2 Oral medicines

Drug	Dosage	Relation to food	Advice
Anuloma DS	1 tablet at night	After food	With warm water
Maha manjishtadi kashaya	20 ml two times (Morning and night)	After food	With warm water
Laghu sootha vati	1 tablet two times	Before food	With warm water
Kamadugha with mouktika	1 tablet two times	Before food	With warm water
Guduchi rasayana	4 capsules three times	After food	With warm water

EXTERNAL APPLICATIONS

As the patient showed the symptoms related to blepharitis, hot fomentation was advised for both the eyes. *Bilwadi gutika*⁸ added for external application after being crushed and pasted in water. *Eranda taila*⁹ applied externally once in a day.

PANCHAKARMA THERAPY As the disease was at the stage of *Bahudoshavastha* (severe

of proper oral medicines 2. Appropriate *panchakarma* for *Ama*

3. Appropriate *panchakarma* for the disease
4. External applications.

ORAL MEDICINES

Oral medicines which are indicated in *Vatarakta* were selected. The preferred medicine which contain the drug like *Guduchi*, (*Tinospora cordifolia*) *Guduchi rasayana*⁶ was selected as *Rakta* and *Vata dushti* were present. As this is autoimmune and *Avarana* condition *Rasayana* was preferred. As there is *Rakta dushti* also the drug *Manjishta* (*Rubia cordifolia*) selected. *Mahamanjishtadi kashaya*⁷ was selected to pacify vitiation of *rakta*. As the *Doshadushti* was severe and regular cleansing of the gut was planned through laxatives, Tablet *Anuloma DS* was added. All the selected drugs were manufactured at SDM Ayurveda Pharmacy Udupi. (Table.2)

vitiation of *dosha*), it actually needs *shodhana* (purification therapy). The patient showed *Ama* symptoms such as itching *Agnichikitsa lepa* (external application to whole body) for 2 days given before administering *panchakarma* therapy, as it does the still better action through better absorption of medications.

Basti (enema) was preferred as it is the choice of treatment in *vata* dominant disorders.

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Manjishtadi kashaya was selected for *Niruha basti*(medicated decoction enema table 3). *Niruha basti* followed by *Anuvasana basti* (enema of medicated oil). *Balaguduchyadi taila*¹⁰ was selected for *Anuvasana.Basti* was administered for 8 days as *Yogabasti*¹¹ regimen with 5 *anuvasana* and 3 *niruha*. *Niruha basti* was prepared by mixing honey, salt, oil, paste of *Ashwagandha churna*(*Withania somnifera*), *Kashaya* prepared out of drugs given in the table (Table 3).

Table 3 Ingredients of Manjishtadi Niruha basti

Contents	Ingredients	Quantity
Honey		80 ml
Rock salt		5 grams
Oil	Balaguduchyadi taila	60 ml
Paste	Ashwagandha choorna	40 grams
Manjishtadi decoction (preparation- by taking one part of coarse powder of the drugs adding eight parts of water and reduce to half by boiling.)	Manjishta (<i>Rubia cordifolia</i>) Hareetaki (<i>Terminalia chebula</i>) Vibhitaki (<i>Terminalia bellerica</i>) Amalaki (<i>Emblica officinalis</i>) Katuki (<i>Picrorhiza kurroa</i>) Vacha (<i>Acorus calamus</i>)	240ml
	Daruharidra (<i>Berberis aristata</i>)	
	Amruta (<i>Tinospora cordifolia</i>)	
	Nimba (<i>Azadirachta indica</i>) dry Coarse powder in equal quantity	

It was administered in early morning in empty stomach before breakfast while patient was made to lie on left lateral position. He was advised to hold the *Basti dravya* as long as possible. *Balaguduchyadi taila* was selected for *anuvasana*

basti. About 60ml of *taila* was administered on 1, 3, 5, 7, 8th day soon after lunch.

During the course of treatment patient had complained of left knee joint pain, *Patrapinda sweda* over left knee joint advised once in a day for 5 days.

OBSERVATION AND RESULT

He responded well to the treatment, symptoms like burning sensation, itching over the cheeks, stated to reduce gradually by the end of one week of treatment. After the completion of enema course swelling, pain over the joint skin lesions and other symptoms reduced [fig.3].About 50% improvement was seen at the end of hospital stay. Patient was discharged from the hospital after 10 days with oral medicines. Even though he responded well *Guduchi rasayana* capsule was continued to prevent the relapse of the disease.

PATIENT PERCPECTIVE

Initially patient complained of burning sensation, itching, redness and swelling over cheeks which annoyed him as he was unable to perform his everyday tasks. However after therapy, the patient expressed satisfaction with his everyday work and said he was completely satisfied with the treatment.

ADVICE ON DISCHARGE AND FOLLOW UP

Patient was advised to visit once in a month and to follow oral medicines like *Kaishora guggulu DS*¹².*Mahamanjishtadi kwatha*, *Guduchi rasayana*, *Mahatiktaka ghrita*¹³ .Since it is the

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condition of autoimmune he was advised to continue the treatment for longer duration (Table 4). Consecutive 2 follow ups were done with same medications and no adverse effects of medicines observed. The condition was not triggered and patient was recovered well with the medicines till date.

Table 4 Discharge medicines.

Drug	Dosage	Relation to food	Advice
Mahamanjishtadi Kasahya	20ml three times	After food	With warm water
Guduchi rasayana	4 capsules 2 times	After food	With warm water
Kaishora guggulu	1 tablet 2 times	After food	With warm water
Mahatiktaka ghrita	10ml once in morning	After food	With warm water

DISCUSSION

Systemic Sclerosis is an autoimmune disease in which vascular and immunological processes lead to progressive organ fibrosis. The disease include prominent early features like circulating ANAs which is the marker of immunological abnormalities and RP which results in digital ulceration, as a sign of vascular dysfunction¹⁴. To detect valid predictors of disease so as to treat patients since the earliest stage of the disease is the biggest challenge in the fight against SSc. Red flags or the main elements to suspect SSc are antinuclear antibody, Raynaud's phenomenon and puffy fingers and then to perform further tests to confirm the diagnosis¹⁵. More and more attention should be given to early identification

through which the physician can act with effective drugs able to block or at least slow the advancement of the disease.

In Ayurveda, *vatarakta* is explained as an example for *Avarana* pathology. Stages of the disease like *Uttana* (superficial) and *Gambhira* (deep) give idea about the disease progression and involvement of multiple organs. In this case, the symptoms like joint pain were produced by vitiated *vata*, later *pitta* and *rakta* gets involved in the pathogenesis patient developed burning sensation, skin rashes. This complex presentation of imbalance between *dosha* and *dhatu* with obstruction indicates autoimmunity of modern pathology. Final diagnosis in Ayurveda of this case can be termed as *Uttana vatarakta*.

Samprapti vighatana (Treatment) in such complex condition can be achieved by removing *avarana* and later correcting the disharmony of vitiated *vata* and *pitta* along with *Raktaprasadaka* and *Rasayana* drugs.

Guduchi is the drug of choice in the treatment of *vatarakta*. *Guduchi* posses *Tikta rasa* (bitter in taste), *Madhura vipaka* (sweet after digestion) and *Ushna veerya* (hot in potency). It has *vatahara*, *raktaprasadaka*, *rasayana* property also which is indicated in *Vatarakta* and *avarana* condition. Studies on *Tinospora cordifolia* have shown that it is having anti-inflammatory, anti-oxidant and immunomodulatory action. *Guduchi* is the major ingredient in *Kaishora guggulu* and *balaguduchyadi taila*. *Kaishora guggulu* and *Anuloma Ds* contains laxative drugs which helps

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in daily removal of *doshas* from entire body and expels it through anal route. *Basti* and laxatives help to keep large intestine clean as large intestine is considered as the place of origin for all *vata* disorders. Thus control further *vata* vitiation. *Manjishta* and other ingredients in *Manjishtadi kashaya* and *Manjishtadi Niruha basti* have *raktaprasadaka* property and indicated in *raktadushti* conditions. Rubiadian present in *Manjishta* has anti-oxidant property.

CONCLUSION

It can be thus concluded that Ayurvedic treatment modalities in Autoimmune pathologies like SSc, are highly effective with a significant and major decrease in symptoms, along with the improved quality of life and wellbeing of the patient. It can effectively prevent the progression of the disease when diagnosed and treated at the very beginning.

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CONFLICTS OF INTEREST

There are no conflicts of interest.

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