

Understanding and Treatment of Scleroderma through Ayurveda

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Abstract

Scleroderma is one of the rare autoimmune disorders which affects the connective tissue featuring skin thickening, spontaneous scarring, blood vessel disease, varying degrees of inflammatory pathologies. Scleroderma is considered to be caused by genetic and environmental factors. In many of the cases it presents with Raynaud's phenomenon, nail-fold capillary changes, and elevated antinuclear antibodies. In Ayurveda, scleroderma can be understood as a form of skin disease caused by the simultaneous imbalance of Vata, Pitta and Kapha doshas. Ayurvedic treatment protocol for Scleroderma needs both Shodhana and Shamana line of management. This paper deals with understanding of this scleroderma through Ayurveda along with its probable line of treatment; showcasing a single case study.

Keywords

Scleroderma, Autoimmune disorder, Skin disease, Shodhana, Shamana, Ayurveda Treatment Protocol.

Introduction

The term scleroderma refers to a thickening or hardening of the skin owing to abnormal dermal collagen¹. It is an autoimmune disease of the connective tissue featuring skin thickening, spontaneous scarring, blood vessel disease, varying degrees of inflammation, associated with a deranged immune system.

Autoimmune diseases are illnesses that occur when the body's tissues are attacked by its own immune system. Scleroderma is characterized by the formation of scar tissue (fibrosis) in the skin and other organs of the body. This leads to thickness and firmness of involved areas. Scleroderma, when diffuse or widespread over the

body, is also referred to as systemic sclerosis²

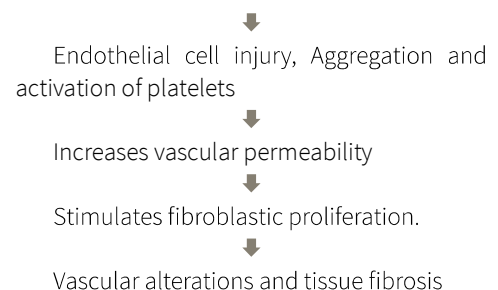
It can be of 2 types mainly one being Diffuse scleroderma in which the skin shows widespread involvement and may progress to involve visceral structures or being CREST syndrome characterised by Calcinosis (C), Raynaud's phenomenon (R), Esophageal hypomotility (E), Sclerodactyly (S) and Telangiectasia (T).³

Etiology

The cause of scleroderma is not understood completely. Researchers have found some evidence that certain genes are important hereditary factors, but the environment also seems to play a major role.

Pathogenesis

Susceptibility genes/certain environmental factors



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Clinical Features of Systemic Scleroderma

- i) Claw-like flexion deformity of hands
- ii) Raynaud's phenomenon
- iii) Oesophageal fibrosis causing Dysphagia and Hypo motility
- iv) Malabsorption syndrome
- v) Respiratory distress
- vi) Malignant hypertension
- vii) Pulmonary hypertension
- viii) Biliary cirrhosis.

Treatment in contemporary science

No cure for scleroderma is known, though treatments exist for some of the symptoms, including drugs that soften the skin and reduce inflammation. Some patients may benefit from exposure to heat. Care of patients comprising patient education (tailored to patients' education level) is useful in view of the complex nature of the disease symptoms and progress.⁴

Understanding Scleroderma through Ayurveda

1) Scleroderma can be understood as a form of Twak Vikara (skin disease.)

Charaka explains that in all stubborn skin diseases, are caused by the simultaneous imbalance of Vata, Pitta and Kapha (the Doshas) which disrupt Tvak (skin), Ambhu (lymph i.e. Rasa dhatu), Rakta dhatu and Mamsa dhatu (these are the dushyas or "sites" or "victims" of dosha invasion).⁵

This is one reason why skin diseases are so hard to heal. While all three Doshas are aggravated, one or two are generally more dominant. These are defined as the causal Doshas. For example, if Vata is the main causal Dosha, the disease will be termed "Vataja".

Samprapti:

The Doshas, once aggravated, cause vitiation of Agni.



Production of Ama in the inner disease pathway (digestive tract).



*Ama here to be considered in terms of Sapta Dushyas



The aggravated Vata, will carry Ama and other Doshas into the outer pathway (Rasa and Rakta Dhatus)



Causing skin diseases.

Lakshanas⁶:

The following signs help to determine which Dosha is causing the skin disease.

- **Vataja:** roughness, dryness, hardness, coarseness/thickening, horripilation (goose bumps), brown (dark) and reddish discolorations.

- **Pittaja:** burning sensation, redness, exudation (oozing), suppuration (discharging pus), smell like raw meat, stickiness, sloughing of limbs (skin is shedding).
- **Kaphaja:** white discolouration, cold to touch, itching, localisation, elevation (raised in nature), heaviness, stickiness, maggot formation.

These are important diagnostic tools to help differentiate the type of skin disorder.

Applied to scleroderma, we see mainly a Vata type presentation characterized by fibrosis (or hardening) and vascular alterations.

2) Scleroderma can be understood as a form of Vata Rakta

The disorder produced by conjugation of vitiated Vata and Rakta producing multiple signs and symptoms related with skin and musculo-skeletal system. It has two stages i.e., Uthana and Gambhira⁷.

Samprapti:

Dosha aggravation (Vata) due to the mentioned cause



Rakta Dusti



Lodges in weaker spots



Skin (Uttana Vata Rakta)

Musculo-skeletal (Gambhira Vata Rakta)

The skin manifestation and skin hardening and tightening can be understood in terms of Uttana Vata Rakta whereas the deformities, intense pain presented can be considered under Gambhira Vata Rakta where the bones and viscera get involved.

Lakshanas⁸:

Uttana presents with skin manifestations such pricking type of pain, Burning and Itching sensation of skin. Deformities of organs, skin contracture, discolouration of skin.

Gambhira Vatarakta mainly affects Asthidhatu and manifests with symptoms such as pain and burning sensation in multiple



joints associated with swelling.

Applied to scleroderma, we see mainly a consider Uttana type when presented with skin or vascular alterations. Gambhira variety when musculoskeletal system gets involved.

Probable line of treatment:

Langhana is generally needed to address the Dosha/Ama/ Mala in the dhatus, especially rasa & rakta dhatu. Ideally, Shodhana (purification) is indicated, thus patients should be referred for Panchakarma as first line treatment.

Shamana protocol (pacification of Doshas and gentle elimination of Ama) is the integral tool to check further progresses; In chronic cases, dhatu Kshaya (destruction / reduction of Dhatus) is likely which requires Brimhana therapies. A careful balance of Shamana and Rasayana therapies are required for the long term management of this condition and other serious skin diseases.

Care should be taken not to simplify this condition and define it by its more chronic symptoms of Vata Vriddhi (dryness and hardening). It is possible that there is an underlying state of Pitta Vriddhi or even Kapha Vriddhi (less common) in the inner pathway. Take care to evaluate which Dosha is most dominant by skin examination and by examination of the inner pathway (Samana, Apana, Pachaka, Kledaka, Jatharagni, type of Ama in the gut.).

For cases where there is high Vata (wasting, dryness) with associated Ama, be careful not to use internal and external oleation prior to having established some removal of Ama and support for Agni. Otherwise, oleation therapy will only increase Ama.

Case Study

A 36 year old female presented with tightness, roughness, hardness, pinkish pigmentation of skin, fingers, skin abnormally thin, stiffness and tightness of fingers, hands and fore arm, tight and mask like skin around the mouth.

Multiple joint pain and stiffness of the joints, breathlessness, constipation, difficulty in swallowing and all these symptoms were present since 4 years.

All above said symptoms were progressive in nature and in this period patient consulted many physicians, dermatologist and many other specialty clinics but did not find relief.

General Examination- unremarkable except pallor++

BP- 120/80 mm of Hg;

Pulse- 80/min regular.

Systemic examination:

No abnormalities detected.

Local examination of skin:

Revealed rough, hard and tightness of the skin and patient was unable to open the mouth fully; only two fingers could be inserted in the mouth (fish type of mouth).

Pinkish discolouration of the skin was observed and degenerative changes in the skin were observed. Raynaud's

phenomenon is positive and intermittent claudication was also present.

On the basis of signs and symptoms patient was diagnosed to be suffering from Scleroderma / Vatarakta according to Ayurvedic view.

Treatment given:

Shodhana:

- Deepana – Pachana : Chitrakadi Vati 2 TID for 3 days
- Sadhyo Virechana : Gandharva Hastadi Taila 30ml on 4th day.
- Samsarjana Krama 5th day
- Vaitharana Basti in Kala Basti pattern from 6th day onwards
- Sthanika Abhyanga with Bala Taila for 7 days
- Sthanika Patra Pottali Sweda for 7 days

Ingredients of Vaitharana Basti

- Gudapaka : 30 ml
- Saindhava Lavana : 10 grms
- Chinch Swarasa : 40 ml
- Murchita tila Taila : 50 ml
- Gomutra Arka : 200 ml

Total = 320 ml

Shamana:

1. Simhanada guggulu 2 BD After food
2. Dashamoolarishta 30 ml after food
3. Panchatikta gritha guggulu 1BD After food
4. Tab. Shallaki – MR 1-1-1 After food

Duration of stay: 21 Days

Improvement

After undergoing proposed treatment schedule, patient noted that lot of subjective changes in the skin tightness, decreased pain and tightness in the joints, patient was able to flex and extend the fingers with minimal feel of tightness, slight colour changes over the skin. Constipation relieved completely, improvement in breathlessness and is able to open mouth better without much difficulty. After the therapy, patient had symptomatic relief by about 60% when compared to previous condition.

Follow up after 1 month

Since last few months she had been continuing

Ayurvedic medicine and clinically better on all symptoms.

Discussion

Scleroderma affects the skin to cause local or widespread signs of inflammation (redness, swelling, tenderness, itching, and pain – this is mainly Pitta Vriddhi) that can lead to skin tightness or hardening (Vata Vriddhi). These skin changes can be widespread, but it is most common to affect the fingers, feet, face, and neck. This can lead to decreased range of motion of the fingers, toes, and jaw. Tiny areas of calcification (calcinosis), while not common, can sometimes be noticed as hard nodules at the tips of the elbows or in the fingers. (Again, Vata Vriddhi).

Scleroderma affecting the oesophagus leads to heartburn (Pitta Vriddhi / Pachaka Pitta). This is directly a result of stomach acid flowing back up into the esophagus. Sometimes this can lead to scarring of the esophagus (Vata Vriddhi), resulting in narrowing with difficulty swallowing food and/or localized pain in the central chest. (Vata Vriddhi).

The sequential colour changes in the fingers and toes are referred to as Raynaud's phenomenon. Raynaud's phenomenon can cause inadequate supply of oxygen to the involve tips of fingers or toes, causing tiny ulcers or blackened (dead) skin. Sometimes Raynaud's phenomenon is also associated with tingling. (Rasa & Rakta Gata Vata / Vata Vriddhi).

Other blood vessels that can be involved in scleroderma are the tiny capillaries of the face, lips, mouth, or fingers. These capillaries widen (dilate), forming tiny, red blanching spots, called telangiectasia. (Vata/Pitta Vriddhi)

Elevated blood pressure is potentially serious and can lead to kidney damage (renal crisis). Symptoms include headache, fatigue, and in severe cases, stroke. Blood pressure monitoring and control is essential in cases of Scleroderma.

Inflammation of the lungs (Puphusa Vriddhi) in scleroderma can cause scarring (Rasa Gata Vata), resulting in shortness of breath, especially with physical exertion. Elevated pressure in the arteries to the lungs (pulmonary hypertension) can also cause shortness of breath and difficulty getting an adequate breath with activity. (Rasa Gata Vata causing constriction based congestion)

Scleroderma affecting the large bowel (colon) most often causes constipation but can also lead to cramping and diarrhea. When this is severe, complete stool blockage (faecal impaction) can result. (Apana Vata)

Thus it can be considered and treated in lines of Vata dominant twak vikara and Vata Rakta.

The line of treatment given in the present case Vaitarana Basti was given to expel the morbid Doshas and pacify the Vata Dosha by relieving the Sroto Abishyandana. Shamanoushadi's combined with Psychological counselling, Shodhana line of treatment and rasayana treatment to be adopted for promising results.

Conclusion

Scleroderma is a rare auto immune disorder which affects the female population more when compared to male; caused

due to defective genes or environmental changes. Shodhana and Shamana treatments together can be used wisely. This protocol can be modified to suit patients and their needs. Diet and lifestyle are central. Ayurvedic supplements or medicines are generally needed. Panchakarma (Therapeutic purification) is highly advisable.

Since the main cause of all auto-immune diseases is Ama based (digestive in origin), care should be taken to help patients improve their nutrition. A hypo-allergenic, or Ama-reducing diet, clinical fasting or intermittent fasting is also useful. A moderately strict wholefoods plant-based diet is needed in the long term to reduce Ama production and arrest the progress of pathogenesis in Scleroderma.

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