

A CONCEPTUAL REVIEW ON UNDERSTANDING OF SYSTEMIC LUPUS
ERYTHEMATOSUS (SLE) W.S.R TO VATARAKTHA IN AYURVEDAAmritha P.^{*1}, Veerakumara K.² and Aniruddha S.³¹PG Scholar, Department of PG Studies in Kayachikitsa, Sri Dharmasthala Manjunatheshwara College of Ayurveda and Hospital, Kuthpady, Udupi- 574118, Karnataka, India.²Professor, Department of PG Studies in Kayachikitsa, Sri Dharmasthala Manjunatheshwara College of Ayurveda and Hospital, Kuthpady, Udupi- 574118, Karnataka, India.³Associate Professor, Department of PG Studies in Kayachikitsa, Sri Dharmasthala Manjunatheshwara College of Ayurveda and Hospital, Kuthpady, Udupi- 574118, Karnataka, India.***Corresponding Author: Amritha P.**

PG Scholar, Department of PG Studies in Kayachikitsa, Sri Dharmasthala Manjunatheshwara College of Ayurveda and Hospital, Kuthpady, Udupi- 574118, Karnataka, India.

Article Received on 14/09/2024

Article Revised on 04/10/2024

Article Accepted on 25/10/2024

ABSTRACT

Systemic Lupus Erythematosus (SLE) is the classic prototype of multisystem disease of autoimmune origin. It is an autoimmune disease that affects skin, joints, kidneys, blood cells, brain, heart and lungs.^[1] The exact cause of SLE is not known. Certain environmental triggers like UV radiations, psychological factors like physical and emotional stress and trauma are believed to contribute to disease development. Many organs and tissues may be affected in SLE, the pattern of clinical manifestations and autoimmune phenomena is heterogenous among patients and even changes over time in individual patients, thus making it highly difficult for early diagnosis and timely intervention. Ayurveda, the ancient glorious system of medicine is well known for its highly effective treatment modalities in such diseases. This article is an attempt to explore the Ayurvedic perspective on SLE (Systemic lupus erythematosus), by analyzing its causative factors, pathogenesis, clinical manifestation and prognosis by considering *Vatarakta*.

KEYWORDS: Systemic lupus erythematosus, *Vatarakta*.**INTRODUCTION**

SLE is an autoimmune disease characterized by common symptoms like painful and swollen joints, low grade fever, mouth ulcers, fatigue, loss of appetite and red rashes especially seen on face (butterfly rash).^[2]

Apoptosis is pivotal in the pathogenesis of lupus. Excessive non-cleared apoptotic waste is associated with inflammation and autoantibody production.^[3] Autoimmunity accompanied by a complex interplay of defective clearance of apoptotic waste and immune complexes along with neutrophil extracellular traps, sensing of nucleic acids, disrupted lymphocyte biology and interferon pathways. Autoantibodies targeting nucleic acid-bound antigens are one of the hallmarks of the disease. Despite the variation of SLE across all age groups, it is more common between the ages of 15 and 45 years.^[4] The gender disparity of SLE is also widely recognised with a 1: 9 ratio of male to female patients. The incidence and prevalence of SLE in females is usually highest at 15–44 and 45–64 years of age, respectively.

Vatarakta is a disease involving imbalance of Vata dosha affecting Rakta dhatu, where the *Vayu* gets aggravated due to rides on animals like elephants, camels, horses and on the other hand *Rakta* or blood gets vitiated by the consumption of excessive *Lavana*(salty), *Amla*(sour), *Katu*(pungent), *Kshara*(alkaline) like substances. The *Vata*, whose passages are blocked by *Rakta*, further undergoes vitiation and further contaminates the *Rakta* or blood. This combination of vitiated Vata and Rakta is called *Vatarakta*.^[8] Proper analysis and understanding of the disease in ayurvedic perspective, can provide efficient and timely intervention.

AIM

To understand Systemic lupus erythematosus(SLE) in *Ayurvedic* perspective.

MATERIALS AND METHODS

For this article, references from the classical *Ayurvedic* literature, modern literature, *Ayurveda* magazines and various research journals as well as Pubmed, medicine database were considered.

NIDANA/ETIOLOGY

The exact cause of SLE is not known. Certain environmental triggers are believed to contribute to disease development. These include ultraviolet (UV) rays from the sun.^[6] Psychological factors like physical and emotional stress and trauma. SLE affects women far more often than men. Research indicates that sex hormones like estrogen play a part in the development of SLE, although the exact mechanisms remain unclear. Inadequate dietary intake leading to Vitamin deficiency is yet another important cause for SLE. Several studies have shown that nutrients modify the immune response as well as the integrity of the organs and tissues.

Virudhahara (mutually contradictory food), *sukumara prakriti* (delicate personality) and *sthoulya* (obesity) are recognized as *nidana* of *Vatarakta*. Excessive intake of foods predominant in *rasa* like *lavana* (salty), *amla* (sour), *katu* (pungent), *snigdha* (unctuous), *klinna* (moisture), *sushka* (dry), *ushna* (hot) and *kshara* (alkaline) *ahara*. Excessive consumption of *kulatha* (horse gram), *masha* (black gram), *sauvira* (sour preparation of dehusked barley) like food are the factors specifically responsible for *Vata and Rakta Dushti*.^[7]

SAMPRAPTI/PATHOGENESIS

The pathogenesis of SLE involves production of auto-antibodies, which are directed against antigens present within the cell leading to defect in apoptosis or in clearance of apoptotic cells, which in turn causes inappropriate exposure of intracellular antigens on cell surface, leading to polyclonal B and T-cell activation as well as auto antibody activation. Thus the immune complex formation is understood as an important mechanism of tissue damage in SLE, leading to widespread vasculitis and organ damage.

In *Vatarakta*, when person indulging in *Vata* and *Rakta prakopaka nidana*, leads to vitiation of both *Vata* and *rakta*. The vitiated *Rakta* obstruct the path of *Vata* leads to further aggravation of *Vata* which tend to vitiate the entire *Rakta* in the body. *Drava* (fluidity) and *sara* (flowing) *guna* of *Rakta* and *sookshma* (pervasive) and *chala guna* (mobility) of *Vata* helps to spread in entire body. Due to the *vakrata* of *sandhi* (deformed joints), these gets lodged in *sandhi* (joints) thereby producing symptoms of *Vatarakta*.

POORVAROOPA/PREMONITORY SYMPTOMS

Though SLE doesn't typically exhibit a consistent pattern of symptoms. However, initial signs may include pain in your joints, acute rashes (malar rashes), fever, weakness, weight loss and fatigue.

Purvarupa of *Vatarakta* includes *Atisweda* / *Asweda* (*Hydrosis* / *anhidrosis*) *Karshnyata* (*Blackish discoloration*) *Sparshgnatwa* (*Paresthesia*), *Kshate Atiruk* (*Increased pain on touch/injury*), *Sandhi Shaithilya* (*Looseness of the joints*), *Alasya* (*Laziness*),

Sadana (*Fatigue*) *Pidakodgama* (*Formation of papules*), *Bhedana* (*Splitting type of pain*) *Gurutwa* (*Heaviness*) *Supti* (*Numbness*), *Kandu* (*Itching*) *Sandi Ruk* (*Pain in joints*), *Vaivarnya* (*Discoloration*), *Mandalotpatti* (*Formation of rounded patches*), *Sheetalata* (*Coldness of the limbs*), *Osha* (*Burning sensation*), *Daha* (*Burning sensation*), *Sopha* (*Swelling*), *Twak Parushya* (*Roughness of the skin*), *Sira Dhamani Spandana* (*Increased pulsatile vessels*) *Sakti Dourbalya* (*Decreased strength in thigh*), *Ati Slakshna Khara Sparsha* (*Rough on touch*), *Shrama* (*Increased exertion*).^[5]

RUPA/CLINICAL FEATURES

The clinical features of SLE includes non specific symptoms like fever, malaise, weight loss etc. Since it involves with multiple systems of the body, a wide range of symptoms can be observed like migratory arthritis, joint deformities, facial rashes, glomerulonephritis, myocarditis, pleural effusion, pneumonitis, visual hallucinations, organopsychosis, thrombocytopenia, haemolytic anemia, mesenteric vasculitis etc.^[9]

Vatarakta is a condition which presents with the specific symptoms. The chief complaint of the patient is severe *Sandhi-shula* (joint pain) with onset in *Hasta* (hand), *Pada mulagata sandhi* (Meta-tarsophalangeal joints), and then migrates to other *Sandhi* (joint) in a way similar to *Akhuvisa* (rat poison). Two types of *Vatarakta* are described by *Acharya Charaka*, *Uthana* and *Gambheera Vatarakta*.

Uthana Vatarakta symptoms include *Kandu* (Itching), *Daha* (Burning sensation) *Ruja* (Pain) *Sira Aayam* (Dilatation of the vessels) *Toda* (Pricking pain) *Sphurana* (Throbbing sensation), *Sira Aakunchana* (Contraction), *Shyava Twak* (Cyanosis or pallor of the skin) *Rakta Twak* (Reddish discoloration of the skin), *Bheda* (Splitting type of pain).

Gambheera Vatarakta symptoms include *Syavathu Stabdhata* (Fixed swelling) *Syavathu Kathinya* (Hard swelling) *Bhrisharti* (Excruciating deep pain) *ShyaVata* (Cyanosis or pallor) *Tamra Twak* (Coppery discoloration) *Daha* (Burning sensation) *Toda* (Pricking pain) *Sphurana* (Twitching) *Paka* (Suppuration) *Ruja* (Pain) *Vidaha* (Internal burning sensation) *Khanjatwa* (Lameness) *Pangutwa* (Paraplegia) *Adhika Parvaruk* (Increased pain in joints) *Svayathu Grathitata* (Hard swelling), *Angasya Vakrikarana* (Disfigurement of the body parts).^[10]

SADHYA-ASADHYATA/PROGNOSIS

Early in the course of SLE disability is more associated with pain and inflammation, whereas later in the course of the disease impairment in functions of vital organs are noted. The progression of the disease can vary from person to person, but it generally worsens over time.

If *Vatarakta* caused by only *one dosha* and having no *upadrava* (complications), freshly occurred, if patient is strong, it is said to be *Sadhy* (curable). If caused by two

dosha without *upadrava*, which is of one year duration, if patient is strong -it is said to be *yaapya*(diseases that can be manageable). If caused by all three *Dosha* and associated with complications like *Ajanusputitha* -it is said to be *asadhya*(incurable).^[11]

TREATMENT / CHIKITSA

In SLE, the main goal of treatment is symptomatic relief. The treatments may include anti-inflammatory medications for joint pain and stiffness, steroid creams for rashes, corticosteroids to minimize the immune response, antimalarial drugs for skin and joint problems.^[12]

In the beginning, patient should be administered with *Snehana* (oleation) and it must be followed by *Virechana*(purgation) with *Sneha Dravyas* (unctuous drugs), if patient is ununctuous or with *Ruksha Virechana*(purgation with ununctuous drugs), if patient is unctuous. *Virechana*(purgation) should be *mridu*(mild) in nature. Then patient should be administered *Niruha*(decoction enema) and *Anuvasana Vasti* (oil enema)frequently. Then he should be given *Seka* (affusion), *Abhyanga* (massage), *Pradeha* (application of thick ointments), food and unctuous substance which do not cause *vidaha*(burning sensation). The patient should be administered with *Upanaha*(poultice), *Parisheka*(affusion), *Lepa*(application of herbal paste), *Abhyanga*(massage) and *Rakta Mokshana* (blood letting therapy).^[13]

Rasayana(rejuvenation therapy) is one among the eight clinical specialties of Ayurvedic science. *Rasayana* (rejuvenation therapy) means the way for attaining excellence in all body tissues through special measures and medicines. In other words, *Rasayana* can act upon our immune system and strengthen it.^[14] The *Rasayanika* action of *Guduchi*(Giloy) is known by virtue of it's properties like *Tikta Kashaya rasa*(bitter and astringent in taste), *guru snigdha guna*(heavy and unctuous in quality), *ushna veerya*(hot potency) and *Madhura vipaka*(sweet in post digestive effect), thereby pacifying and maintaining equilibrium among the three dosha.^[15] The long list of medicinal uses of *Guduchi*(Giloy) mainly supports the immune system, skin, liver, spleen, stomach, blood etc.

DISCUSSION

SLE in its cause, pathogenesis, signs and symptoms have many similar features with *Vatarakta* explained in *Ayurveda literature*. Risk factors like inadequate dietary intake and Vitamin deficiency can be correlated to concept of *viruddhara* (mutually contradictory food), a causative factor seen in *Vatarakta*. It is mainly characterized by the symptoms in joints like *Sandhi Shula* (joint pain), *Sparshasahatva* (Extreme tenderness in affected joints) and *Stambha* (Joint stiffness) which can be correlated with the migratory arthritis seen in SLE patients. *Shopha* (swelling) and *Raga* (Erythema), the important features seen in *Vatarakta* can be correlated to

various inflammatory conditions like glomerulonephritis, myocarditis, pneumonitis, arthritis seen in SLE. *Shyava Rakta twak* mentioned in *Vatarakta* can be correlated with malar/butterfly rashes seen in SLE. Some of the common symptoms seen in both *Vatarakta* and SLE are *jwara*(fever), *sosha*(malaise), *atyushna*(intolerant heat), *Trishna* (excessive thirst and dryness of mouth). Persisting disease activity lasting for prolonged duration is associated with poor prognosis in SLE. In the context of *Vatarakta*, this is analogous to the *Yapya* condition. In SLE, the treatment aims in providing symptomatic relief whereas in ayurveda in addition to the general purification therapies(*shodhana*), *rasayana chikitsa*(rejuvenation therapy) also plays an important role in strengthening immune system. *Guduchi*(Giloy) one among the potent *rasayana* drug, well known for its immunomodulatory effect can be the best choice.

CONCLUSION

On considering the *nidana*(etiology), *samprapti*(pathogenesis), *lakshana*(signs and symptoms) of SLE, it has many similar features with *Gambheera Vatarakta* explained in *Ayurveda literature*. Therefore, the scope of treatment of SLE can be unveiled by usage of *Vatarakta* line of management and by specific usage of *Rasayana* (rejuvenative therapy) *chikitsa* like *Guduchi Rasayana*.

REFERENCES

1. Justiz Vaillant AA, Goyal A, Varacallo M. Treasure Island: StatPearls Publishing; 2022. Systemic Lupus Erythematosus.
2. Ralston, Stuart H., Ian D. Penman, Mark W. J. Strachan, and Richard Hobson, Davidson's Principles and Practice of Medicine. 23rd ed. London, England: Elsevier Health Sciences, 2018; 1107.
3. Disturbances of apoptotic cell clearance in systemic lupus erythematosus. Shao WH, Cohen PL. Arthritis Res Ther., 2011; 13: 202. doi: 10.1186/ar3206.
4. Incidence of systemic lupus erythematosus. Race and gender differences. McCarty DJ, Manzi S, Medsger TA Jr, Ramsey-Goldman R, LaPorte RE, Kwok CK. <https://onlinelibrary.wiley.com/doi/10.1002/art.1780380914>. Arthritis Rheum, 1995; 38: 1260–1270. doi: 10.1002/art.1780380914.
5. Agnivesha, Charaka Samhita. Varanasi: Chaukhambha Sanskrit Sansthan, 2002; 984. (ch,chi 29/5-10)
6. Mechanistic insights into environmental and genetic risk factors for systemic lupus erythematosus. Pan Q, Chen J, Guo L, et al. <https://www.ncbi.nlm.nih.gov/pmc/articles/PM6456562/> Am J Transl Res., 2019; 11: 1241–1254.
7. Anjana Nidana, Agnivesha. In: Ramchandra Shastri Kinjavadekara, editor, Chitrashala Mudranalaya, Pune. 1940.
8. Vaidya Shukla S V, Kayachikitsa, part 2, Rakthavaha vyadhi's 7/5. edition 1st Varanasi.

- Chaukhamba orientalia, 2012; 676.
9. Ralston, Stuart H., Ian D. Penman, Mark W. J. Strachan, and Richard Hobson, Davidson's Principles and Practice of Medicine. 23rd ed. London, England: Elsevier Health Sciences, 2018; 1107-1108.
 10. Shrikhantamurty KR. Ashtangasangraha Sutrasthana chapter 9/7. Varanasi: Chaukhambha Orientalia, 1996; 200.
 11. Kavi Ambikadutta shastri, Sushruta Samhita, Choukhamba Sanskrit Sansthan, 2018; 40. (Su. Chi. 5/10)
 12. Ralston, Stuart H., Ian D. Penman, Mark W. J. Strachan, and Richard Hobson, Davidson's Principles and Practice of Medicine. 23rd ed. London, England: Elsevier Health Sciences, 2018; 1109.
 13. Agnivesha, Charakasamhitha. Varanasi: Chaukhambha Sanskrit Sansthan, 2002; 995. (Cha. Chi. 29/74)
 14. Sharma P.V. Charaka Samhita Part 2, Chikitsasthana, Varanasi: ChaukhambhaOrientalia, 2011; 4. Sloka no:1/8.
 15. ShriBhavamisra, Bhavaprakasa Nighantu, commentary by Dr. K.C. Chuneekar, edited by Dr.G.S.Pandey, Varanasi: Chaukhambha Bharati Academy, 2006; 269.