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SYSTEMIC LUPUS ERYTHOMATOUS - A CASE STUDY IN AYURVEDIC SETTING

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ABSTRACT

Systemic lupus erythematosus (SLE) is a chronic autoimmune disease characterized by the production of auto antibodies resulting from the dysfunction of T cells, B cells and dendritic cells. Ninetypercents of patients are women of child bearing years. People of both sexes, all ages and all ethnic groups are susceptible. Here we are reporting a case of SLE of a 26 year old female patient. The possible understanding of the case in terms of Ayurveda and a therapeutic protocol with promising result has been discussed.

Keywords: SLE, autoantibodies, dendritic cells.

INTRODUCTION

SLE is autoimmune diseases in which organs and cells undergo damage mediated by tissue binding auto antibodies and immune complexes. 1 SLE affects 2 to 8 persons per 100,000 in United States. Most cases occur in women of childbearing years. African, Asian and Native Americans are three times more likely to develop than whites. Etiology is unknown.Most probable causes are Genetic influence, Hormonal imbalance, Environmental factors and certain medications. The diagnossigns and symptoms are rash, discoid rash, serositis, oral ulcers, arthritis, photo sensitivity blood problems (leukopenia), renal Failure, ANA (+), immunologic Problems, neurologic Problems (cerebritis) ².Under clinical manifestations musculoskeletal manifestations Polyarthralgia with morning stiffness, Arthritis, Swan neck fingers, Ulnar deviation, Subluxation with hyper laxity of

Cardiopulmonary manifestations are Tachypnea, Pleurisy, Dysrhythmias, Accelerated CAD, Pericarditis. manifestations are Lupus nephritis ranging from mild proteinuria to glomerulonephritis.Primary goal in treatment is slowing the progression. Nerological manifestations are generalized/focal seizures, peripheral neuropathy, cognitive dysfunction, disorientation, memory deficits and psychiatric symptoms. Hematologic manifestations are formation of antibodies against blood cells, anemia, leucopenia, thrombocytopenia, coagulopathy. Incidence of systemic manifestations of SLE are Systemic fatigue, malaise, fever, anorexia, weight loss-95%, Musculoskeleton-95%, Cutaneous-60%, Haematological-85%, Neurological-60%, Cardiopulmonary-60%, Renal-30 to 50%, Gastrointestinal-40%, Thrombosis-15%, Ocular-15%³.

Case report- A 26 year old female patient

came to N.I.A OPD (on 5-9-2014) with chief complaints of multiple joints pain, blackish discoloration of skin, pedal edema since 2 years.

Associated complaints-Chest pain, facial puffiness, loss of appetite

History of present illness

According to patient she was quite well 2 year back. Gradually she developed pain in multiple joints (starting from the small joints with stiffness and tenderness) associated with facial puffiness. She also developed pain in chest region (pin pricking type). During this period she also underwent one miscarriage (one month). She consulted to modern physician for this and was given treatment, mainly steroids but the condition did not improve accordingly. Then she decided to go for Ayurvedic treatment and visited NIA.

Past history- No history of DM, HTN, TB, no any surgical history

Drug history- Methotrexate, Prednisolone, HCOS

Family history- no any relevant family history

Vitals at time of first visit to NIA.-B.P. 120/70 mm of Hg, Pulse-82/min,Afebrile,R.R-18/min

Physical examination - General condition - fair, Pallor⁺, Icterus⁰, Cyanosis⁰, Clubbing⁰, Pedal Oedema with facial puffiness, Lymph node not palpable, Respiratory system- crepts present in b/l basal part

CVS- NAD, GIT-NAD, CNS-NAD

Dermatological Manifestations

Skin- photosensitive, butterfly rash over malar area and bridge of nose, Cutaneous vascular lesions

Investigations

• **Blood investigation-**(5-9-2014)

CBC

Normocytic normochromic anaemia(Hb-9.3gm%), W.B.C-11.83ths/dl

Thrombocytopenia, Lymphocytopenia

CRP +ve

LFT S. Albumin -2.7 mg/dl, S.globulin-3.7 mg/dl, A/G ratio-0.73

U/E 24 hr urinary protein-150 mg/dl **Diagnosis**

• The etiology and pathology of SLE are not well defined even in modern science, So we can compare the disease with Ayurvedic concepts only on the basis of general signs and symptoms. *Vatarakta* is mentioned in Ayurvedic classics, can be correlated with SLE on the basis of sign and symptoms.

TREATMENT GIVEN:

- 1. Kumarkalyan Rasa- 250 mg BD
- 2. Arvindasava- 20 ml BD with equal amount of water
- 3. Shiva Gutika- 500 mg BD
- 4. Bakayana Swarasa- 40 ml BD
- 5. Chaushta prahari pippali- 125 mg BD

RESULTS

Table No: 1 Showing results of treatment on Anti ds DNA

Date	Anti Double	
	Stranded DNA(Anti ds DNA)	
	(IU/ml)	
7-7-2014	1163	
5-9-2014	1299.3	
9-1-2015	1271.9	
11-2-2015	682.91	

Table: No.2 Showing results of treatment on Urine protein excreation(mg/dl)

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Date	Urine protein(mg/dl)

7-7-2014	160
6-8-2014	150
6-9-2014	150
1-11-2014	75
13-11-2014	75
11-2-2015	75

Table: No.3 Showing Final Improvement in Nutshell

	BT	AT
Anti ds DNA IU/ml	1163	682.91
Urine Protein mg/dl	160	75

DISCUSSION

SLE is a chronic autoimmune disease. The chronicity, systemic involvement and severity of the complications among both the diseases also have quite similar presentations with *Vatarakta*.

- Affects mainly –
- Young females-Sukumar prakriti
- After pregnancy- Dhatu shithilata is there hence mithyaaharavihara during the same period may cause Amautapatti, which further lead to Vata and Rakta prokopa causing Vatrakta.
- So it should be treated on the principle of Ama Dosha Pachana and Srotoshodhana.
- More over Proteinuria suggest significant kidney damage.
- So our goals for treatment are use of *Srotosodhana* and *Amapachana* drugs, nephro-protective drugs, *Rasayana* therapy.
- SLE is the classic prototype of the multisystem diseases of autoimmune origin characterized by a bewildering array of autoantibodies particularly ANAs. So immunemodilatory drugs proved to be effective in these cases.

Probable drug action

1. Kumarkalyan Rasa - It contains abhrak, swarnmakshik, swarn, mukta

bhasm, loha bhasm and act as immunomodulator. It cure pachakagni vikriti, and all of its ingredients have immune-modulatory activity.

Swarn bhasma (Gold salts) used therapeutically can be followed by a decline in serum immunoglobulin levels. Gold inhibit stimulation of immunoglobulin secreting cells. Gold inhibit the activation of the classical and alternate complement pathways. Gold compounds inhibit numerous cell-mediated immune responses to various mitogens and antigens. Inhibition may be due to effect of gold on macrophage acting as helper cell in these reactions. 5Studies with British anti-lewisite a goldantagonist, showed that the gold must stay in the system1 day to obtain immune enhancement ⁶.

Abhrak bhasma-It acts as Rasayana and has immunomodulatory activity⁷. Swarnmakshik bhasm-It acts as Jaravyadhihar⁸ and Rasayana and hence acts as a immunomodulator⁹.

Mukta bhasma- Mukta bhasm shows significant increase in NBT assay, Phagocytosis, Chemotaxis represent good immunomodulatory effect of Mukta bhasma at the dose of 0.06 mg.It suggest that in higher dose it may act as cytotoxic agent but act as an immunostimulant when applied in smaller doses.¹⁰

- Loha bhasma II -It act as Tridoshagha-nam, Rasayan, Vajikaran, Vishagha-nam, Balya.
- 2. Aravindasava¹²- It contain Draksha, Kamalpusp, Usheer, Vacha, Gambhari tawak, Neelkamal, Manjisth, Ela, Bla, Jtamansi, Udumber, Sariva, Shivam, Triphala, Shati, Shyamak, Neelmool. Patolpatra, Arjun twak, Mahuva pusp, Mulethi, Muram Anantmool, Arjun twak, Jtamansi, Blamool, etc. Most of the drugs constituents has immunomodulatory action.
- 3. Shiva Gutika -It contains Shilajith,Shunthi, Pippali, Katuka, Karkatashringi, Maricha, Vidarikanda, Talisapatra, Vamshalochana, Patra, Twak, Nagakeshra, Ela, Seasamum oil, Sugar, Ghee, Honey. Shilajatu the main ingredient of Shiva Gutika. It is useful in alleviating tridosha. It possesses Rasayana, Vrishya properties¹³. It is said that there is no such diseases which cannot be cure with Shilajatu¹⁴.Shilajatu is also used as vogavaha as it increase efficacy of many drugs. Shilajatu has significant antiinflammatory, analgesic, immunomodulatory, antiviral and antioxidant activity¹⁵.
- *4. Bakayana Swarasa* –As significant amount of proteinuria present in SLE. *Bakayan* is proven as potent nephroprotective. ^{16(1,2)}
- **5.** Chaushta prahari pippali Pippal¹⁷ is Katu-Tikata in Rasa and has the property of Deepana-Pachana and Srotovishodhana.

CONCLUSION

On the basis of this case study it can be concluded that that *Ayurvedic* drugs like *Kumarkalyan Rasa*, *Arvindasava*, *Shiva gutika*, *Bakayana Swarasa* and *Chaushta prahari pippali* is quite effective in treating SLE presenting with above situation.

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