Ayurvedic Management of Systemic Lupus Erythhramatous (SLE): A Case report

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ABSTRACT

Background: Systemic Lupus Erythematosus is one of the three most common autoimmune systemic diseases. SLE, with 'Rheumatoid Arthritis' condition was diagnosed and successfully treated as disease '*Amavata'*. *Chakradatta* can be summarized that i.e to bring *Agni* to normal state to digest *Ama*, and eliminate vitiated *Vata* and *Ama*. Hence, *Kshara Basti* was selected after *Virechana Karma* as *Samshodhana* with *Shamana yoga* process which corrects all of above captions.

Case presentation: In present clinical study, pre- diagnosed case of SLE, with 'Rheumatoid Arthritis'. A 47-year-old female patient came to hospital with complaint of multiple small joints severe pain, swelling, morning stiffness, anorexia, difficulty in movement and also unable to neck movement for 1 year, with fever, indigestion, dyspnoea associated with blackish discolouration of skin and over both the cheeks which gradually turned darker. Patient had taken allopathic medicament orally daily.

Treatment and outcome: The patient treated with *deepana* and *pachana*, after that *Virechana Karma* along with *Kshara Basti, Saindhavadi Anuvasana Basti* followed by *Shaman yoga* to evaluate its efficacy. All clinical parameters, SLE was made based on SLICC criteria and American Rheumatism Association guidelines for RA was followed. Before treatment and after treatment, analysis was done.

Result: Improvement observed in all Symptoms and also found in ESR, CRP, RA factor (quantitative), ANA.

Conclusion: Panchakarma is effective along with *Shaman Yoga* in the management of SLE with RA. It also can reduce the use of anti-inflammatory including corticosteroids in the SLE.
Keywords: SLE, *Amavata*, *Panchakarma*, RA.

- **INTRODUCTION**-

Adoption of unhealthy modern lifestyle, hectic schedule, specifically reduced physical exercise and increase mental stress, has led to incidence of diseases are increasing; one of them is most common autoimmune systemic diseases. Systemic Lupus Erythematosus (SLE) is the classic example of chronic autoimmune inflammatory disease involving multiple organ system disease and marked by intermittent episodes. In India a study shows that 11% of causes for Pyrexia of unknown origin (PUO) as connective tissue disorders which mostly remain undiagnosed[1].Incidence of systemic manifestations of SLE are Systemic fatigue, malaise, fever, anorexia, weight loss-95%, Musculoskeletal-95%, Cutaneous-60%, Haematological- 85%, Neurological-60%, Cardiopulmonary- 60%, Renal-30 to 50%, Gastrointestinal- 40%, Thrombosis-15%, Ocular-15%.[2]. In SLE, the body becomes unable to sustain the normal mechanisms of tolerance to self- antigens and may be associated with overlap syndrome.

Changing of life style of modern human has created several disharmonies in his biological system, has led to incidence, one of them is *Amavata* which is crippling diseases claiming the maximum loss of human power. The main pathological factor in the development of this disease is "*Ama*". This Ama is the utmost important causative factor for various diseases which is produced in the body due to weakness of *agni*.[3] The concept of autoimmunity is well-explained under the concept of *Ama*, an intermediate product generated due to the deranged metabolism of digestive fire triggering a chronic inflammatory process in the body. This *Ama* is then carried by "*Vata*" and travels throughout the body and gets accumulated in the joints, which is the seat of "*Kapha*". As this process continuous, all the joints are gradually affected, which results in severe pain and swelling in the joints.[4]

SLE is a associated with autoimmune polyarthritis of unknown etiology with symmetrical joint involvement and effects many other systems too. In modern medicine, the treatment of the disease includes steroids and immunomodulator drugs together with non-steroidal anti-inflammatory drugs (NSAIDs).[5] There is no definite cure for the disease. Long-term use of these drugs has many adverse effects on the other systems of the body. Hence, alternative treatment is required for patients of *Amavata* (RA).

Chakradatta said, *Langhana, Svedana, Tiktarasa Dravya, Deepaniya Dravya, Katu Rasa Dravyas, Virechana Karma, Snehapana and administration of Basti are prescribed in the treatment of Amavata. Saindhavadi Anuvasana Basti followed by Kshara Basti is also recommended in Amavata.*[6]

- **Case Presentation: -**

A 47 years old female patient came to OPD at I.P.G.T. & R.A. Jamnagar, department of Panchakarma. when she was came here, she was fully bed ridden condition with complaints of severe pain and swelling at multiple joints (Lt>Rt)(Figure 1), morning stiffness (whole day) since four years and also unable to neck movement since one year, associated with blackish discolouration of skin and over both the cheeks which gradually turned darker for the last one year. She had also lower back associated with fever (especially in evenings, nights and winter), indigestion, loss of appetite, difficulty swallowing, dyspnoea, fatigue and depression. She has no any past and family history. Patient had taken allopathic medicament like Tab. Prednisone 40mg 1BD, Tab. Hydroxychloroquine 200mg 1BD, analgesic 1BD and SOS orally daily but temporary relief was noticed. She has been getting mild relief with the above medicines but she is not satisfied and also conventional medicines having side effects. Hence, patient has chosen Ayurvedic treatment and came to our Panchakarma OPD for further management.

- **Examination:**

- Physical examination showed raised temperature and severs tenderness at affected joints with stiffness. Absent of Neck Flexion, Extension and external and internal rotation also Radial pulse showed tachycardia (108 beats per minute).
- Swelling (without erythema) and boutonniere deformity was noted at interphalangeal joints of both hands (Lt>Rt) and at wrists and shoulder joint. Swelling associated with tenderness is noticed at both PIP, MCP, elbow joints, shoulder joints, ankle joints and knee joints. Patient had fever and restricted movements at the above said joints of the body at the time of examination.
- Dermatological Manifestations Skin- photosensitive, butterfly rash over malar area and bridge of nose, Cutaneous vascular lesions, thin tightening of skin and blackish discolouration on face.
- While conversation it was noticed that, patient had negative thoughts and depressed mood.
- Patient was vitally stable. There was no parotid gland swelling. Bilateral axillary enlargement has been found on palpation.

- Laboratory investigation showed that RA factor and C-reactive protein was positive (RF titre 47.8 IU/ml and C-reactive protein 30 mg/l). ESR was also raised (110 mm after 1 hr). Hemogram showed within normal range (haemoglobin 11.5 gm%, total leucocytes 8300 per cubic milli meter, RBC count 4.05 million cells/mcl, Platelet count 3,48,000, Serum calcium 8.8 mg/dl, ASO (Anti Streptolysin O) test, ANA (Antinuclear auto-antibodies) found positive.

- **Diagnosis &Assessment:**

➢ In present case, the diagnosis of 'Systemic Lupus Erythematosus (SLE)' was made based on SLICC criteria[7], above four features and immunological criteria elevated:
(4 of 17 criteria, including at least 1 clinical criterion and 1 immunologic criterion)

Criterion	**Definition**
Malar Ash	Fixed erythema, flat or raised, over the malar eminences, tending to spare the nasolabial folds.
Photosensitivity	Skin rash a result of unusual reaction to sunlight, by patient history or clinical observation.
Arthritis	Non erosive arthritis, involving 2 or more peripheral joints, characterized by tenderness, swelling, or effusion.
Joint disease	Synovitis involving 2 or more joints, characterized by swelling or effusion or tenderness in 2 or more joints & atleast 30minutes of morning stiffness.
Immunological criteria	
ANA	ANA Level above laboratory Reference Range.

- According to American College of Rheumatology (ACR) and European league against rheumatism (EULAR) criteria 2010, it was case of RA[8] .

Treatment protocol: After consult patient consent was taken for specific panchakarma procedure and following the treatment which was given on particular sequence.

Table no. – 2 Treatment protocol:

<table>
<tr><th>No</th><th>Procedure</th><th>Drug</th><th>Dose</th><th>Route of Administer &Anupana</th><th>Duration</th></tr>
<tr><td>1</td><td>Deepana Pachana</td><td>Trikatu Churna</td><td>3 gms TDS / day</td><td>orally with luke warm water</td><td>10 days</td></tr>
<tr><td>2</td><td>Snehapana</td><td>Go – Ghrita
+
Sunthichurna</td><td><table><tr><th>Day</th><th>Morning</th></tr><tr><td>1st day</td><td>30 ml</td></tr><tr><td>2nd day</td><td>60 ml</td></tr><tr><td>3rd day</td><td>90 ml</td></tr><tr><td>4th day</td><td>120 ml</td></tr><tr><td>5th day</td><td>150 ml</td></tr></table></td><td>orally in morning with 5gms &luke warm water</td><td>5 days</td></tr>
<tr><td>3</td><td>MruduSvedana</td><td>Bruhata Saindhavaditailataila</td><td>50-60 ml (for 1 day).</td><td>Bahya</td><td>4 days</td></tr>
<tr><td>4</td><td>Virechana karma</td><td>Erandtaila</td><td>100ml in morning</td><td>orally with Go dugdha</td><td>On 4th day, after Abhyanga & Svedana karma</td></tr>
<tr><td>5</td><td>Sansarjana krama</td><td>Peyadi krama</td><td>16 Vega observed after Virechana Karma</td><td>Orally</td><td>5 days</td></tr>
<tr><td>6</td><td>Basti karma</td><td>Kshara Basti</td><td>320 ml
Chincha- 100gm
Guda – 100 gm
SatpushpaChurna– 10 gm
Go- Mutra – 100 ml
Saindhava – 10 gm</td><td>Rectal</td><td>3 days- Kshara Basti on 4th day Anuvasana Basti for</td></tr>
</table>

		Bruhata Sindhavadi Anuvasana Basti	120ml 1 2 3 4 5 6 7 K K K A K K K 9 10 11 12 13 14 15 K K K A K K K K- Kshara Basti – 320ml A- Anuvasana Basti – 120ml	Rectal	16 days (Alternate *Kala Basti* was given after Lunch)
7	*KaishoraGuggulu*	-	4 tabs / thrice / day after food	orally with Luke warm water	16 days started from 1st day of *BastiKarma* till last *Basti*.
8	*ManjisthadiKwath+RasnaSaptakaKwath*		40 ml/twice /daily empty stomach	orally with Luke warm water	16 days started from 1st day of *BastiKarma* till last *Basti*.
9	*Guduchi churna*-1gm *Gokshura churna*-1 gm *Sunthi churna*-1 gm *Pippali Moola churna*-1 gm		3 gms/thrice/daily 16 days	Orally with Luke warm water	16 days started from 1st day of *BastiKarma* till last *Basti*
10	*Bala taila*	-	20ml / twice / daily when desired of food	orally with Luke warm water	16 days

Table no. – 3 Assessment criteria

Severity of Pain	**Severity of stiffness**	**Severity of swelling**	**Tenderness**	**Anga marda**	**Aruchi**	**Trushna**	**Sunta Angama**	**score**
No pain	No stiffness	No swelling	No restriction	No Body ache	No Aruchi	No Trushna	No numbness	**0**
Pain only on movement	Stiffness persisting only for half an hour to one hour	Mild swelling	Restriction movement but person can perform daily routine	Mild Body ache	Willing towards some specific food	Occasional Trushna	Mild numbness occasionally	**1**

Pain on rest but no disturbance in routine	Stiffness persisting for long time(>1 hour)	Moderate swelling	Patient cannot perform daily routine excepted his personal care	Moderate Body ache	Willing towards only most liking food and not to other foods	Very often Trushna	Numbness on sitting and in some parts of the body	**2**
Severe pain, disturbance in routine activities	Stiffness for whole day and night	Marked swelling	Patient can manage his/her personal care only with help	Severe Body ache	Totally unwilling for food	Always feeling of Trushna	Severe numbness	**3**

Alasya	**Gaurava**	**Apaka**	**Jvara**	**Score**
No Alasya	No heaviness in the body	No Apaka	No fever	**0**
Doing work satisfactorily with late initiation	Feels heaviness in the body but it does not hamper routine work	Occasionally indigestion related to heavy food	Occasional fever subsides by itself	**1**
Doing work unsatisfactorily under mental pressure and takes time	Feels heaviness in the body which hampers daily routine work	Apaka occurs daily after each meals and takes 4 to 6 hours for Udgara Shuddhi…etc symptoms	Occasional fever subsides by drug	**2**
Not starting any work on his own responsibility and doing little work very slowly	Feels heaviness in the body which hampers movement of the body	Apaka occurs daily after each meals does not have hunger	Remittent fever	**3**
Does not take any initiation and does not want to work even after pressure	Feels heaviness in the body along with flabbiness which causes great distress to the person	Never gets hungry always heaviness in abdomen Followed by vomiting…etc.	Continuous fever	**4**

- **Treatment outcomes**

Table no. – 4 DAS 28 Scale assessment of before and after treatment:

Sr. no.		**Before treatment**	**After treatment**
1	**RA Quantitative**	47.8 IU/ml	6.6 IU/ml
2	**C-reactive protein**https://www.sciencedirect.com/topics/medicine-and-dentistry/c-reactive-protein	30 mg/l	5 mg/l
3	**ESR (after 1 hour in mm)**	110 / hr	12 / hr
4	**Hemoglobin**	11.5gm%	12.5 gm%

DAS 28 Scale assessment:

Swollen Joints **Tender Joints** **Swollen Joints** **Tender Joints**

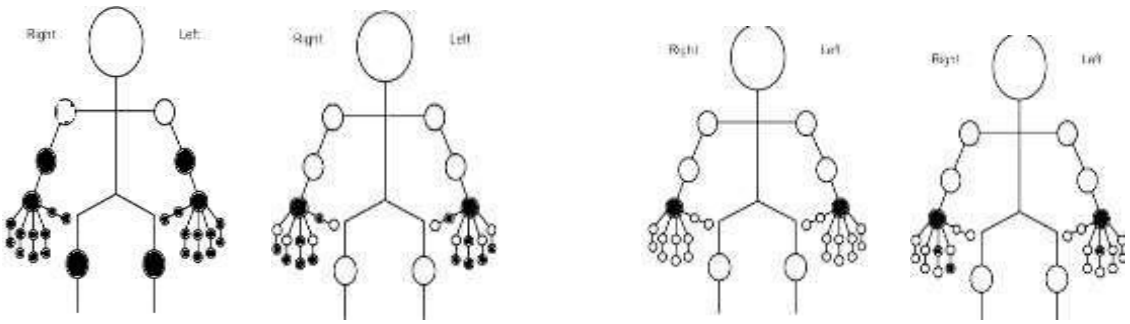

Table no. – 5 DAS 28 Scale assessment of before and after treatment:

Sr. no.		Before treatment	After treatment
1	**Joint count tenderness (28)**	26	5
2	**Joint count swelling (28)**	14	2
3	**ESR (after 1 hour in mm)**	50	06
4	**DAS28 ESR**	6.64 high RA activity	2.90 low RA activity

B.T. – Before Treatment, **A.T.** – After Treatment, **A.S.-** After Snehapan, A.V.– After Virechana, **A.B**.- After Basti, **Fl.up**- Follow up

Table no. – 6 Chief complaints assessment of before and after treatment: -

Sr. no.	**Chief Complaints**	**B.T.**	**A.S.**	**A.V.**	**A.B.**	**Fl. up**
1	Sandhishoola (Pain in joints)	**3**	**1**	**1**	**0**	**0**
2	Sandhigraha (Stiffness in joints)	**3**	**1**	**0**	**0**	**0**
3	Sandhishotha (Swelling in joints)	**3**	**2**	**1**	**1**	**1**

Table no. – 7 Associated symptoms assessment of before and after treatment: -

Sr. no.	**Associated symptoms**	**B.T.**	**A.S.**	**A.V.**	**A.B.**	**Fl. up**
1	Angamarda(Body ache)	**3**	**1**	**1**	**0**	**0**
2	Aruchi (Tastelessness)	**3**	**3**	**1**	**0**	**0**
3	Trishna (Polydypsia)	**1**	**1**	**1**	**1**	**1**
4	Alasya (Malaise)	**4**	**4**	**2**	**1**	**0**
5	Gaurava (feeling of heaviness)	**3**	**3**	**1**	**0**	**0**
6	Jvara (Fever)	**1**	**0**	**0**	**0**	**0**
7	Apaka (Indigestion)	**4**	**1**	**0**	**0**	**0**
8	SunataAngama (numbness)	**1**	**0**	**0**	**0**	**0**

Table no. –8 Degree of disease activity to be assessed before and after treatment on the basis of American Rheumatism Association criteria

Grade	0	1	2	3	B.T.	A.T.
1) Fatigue	No	Work full time despite fatigue	Patient must interrupt work to rest	Fatigued at rest	3	1
2)Grip strength	200 mmHg or More	198 to 120mmHg	118 to 70 mmHg	Under 70mmHg	3	2
3) Spread of joints	Not there	0 to 50	51 to 100	Over 100	1	1
4)Westergren ESR	0 to 20	21 to 50	50 to 100	Above 100	1	0
5) Haemoglobin	12.5 or more	12.4 to 11	10.9 to 9.5	<9.5	2	1
6) performance of General activities	All activity without difficulty	Most activity but with difficult	Few activity cares for self	Little self-care mainly on chair &bed	3	0
7)Patients estimate	Fine	Almost well	Pretty good	Pretty bad	2	0
8) Dr. estimate in RA	Inactive	Minimally active	Moderately active	Severely active	3	1
Apart from these criteria of ARA (1987) two other criteria were added here						
9) Foot pressure	36-40 kg	31-35 kg	26-30 kg	<20 kg	3	2
10)Walking time (for25 feet)	15–20 sec.	21-30 sec.	31-40 sec.	>40 sec.	3	1

Sum of total BT = 24 / 30 **Sum of total AT = 9 / 30**

1) As it is said that *Mandagni* is the main root of cause of all diseases. At the end of first 10 days of *Deepana* &*Pachana* which digest *Ama*, removes excessive *Kledaka Kapha* and improved *Agni*.
2) After that *Snehapana*was given 30ml to 150ml in increasing dose till *Samyaka Suddhi Lakshana* Observed, during *Snehapana* pain was reduced. Conventional medicaments were reduced in tapering dose during *Snehapana*.
3) *Virechana* karma done on 4th days of *Mrudu Bashapa Svedana* after *Snehapana* stiffness and swelling was reduced in small joints but patient could not fit properly by fingers due to mild pain.
4) After 5 days of *Sansarjana krama Kshara Basti* and *Bruhat SaindhavadiTaila Anuvasana Basti* was started with orally *Kaishora Guggulu, Manjisthadi Kwath, RasnaSaptaka Kwath, Guduch ichurna,Gokshura churna, Sunthi churna,Pippali Moola churna* and *Bala Taila* as a *Shamana Sneha*. Improvement was observed in Appetite.
5) After one month of *panchakarma* and oral medication there was complete reduction in morning stiffness, pain and swelling in all affected joints were grossly reduced. Anorexia and body ache were not seen. Conventional medicaments were ultimately stopped.

6.) CRP dropped up to 5 IU/ml on discharged which was more than 30 IU/ml before treatment. Patient kept on strictly *Pathyapathya* for one more month after *Panchakarma*. After completing two months of oral medication and *panchakarma*, patient was absolutely symptom free and no needed Conventional medicaments. She could bear all her responsibility.

- **Discussion**

Probable mode of action

- ✓ *Snehapana* is the process by which Snigdhata; *Vishyandata, Mriduta* and *Kledana* in body are achieved.[7] The properties of *Sneha* are *Drava, Sukshama, Sara, Snigdha, Pichhila, Guru, Sheet, Manda* and *Mridu Snehapana* is of two types *AchhaSnehapana* and *Siddha Snehapana*. These can be used as per the condition (*Samavastha*&*Niramavstha*) and *Bala* of the patients. *Shamana*or *Brimhana* type of *Snehapana* is indicated in *Nirama* stage or chronic condition of the disease. The therapeutic measures so far employed are likely to cause *Rukshata* in the *Dhatu* and provocation of *Vata* which may result in further aggravation of disease process. This can be well controlled by administration of *Sneha*. Due to chronic nature of the disease tremendous *Dhatukshaya* and weakness develops in the body. Hence *BrimhanaSnehapana* was recommended at this stage.
- ✓ *ShamanaSnehapana-Snehana* has been stated to augment the *Agni*, as it influences the digestion by softening food and stimulating the *Agni*. *Snehapana* is also prescribed in case of *AsthiMajjagata Vata*. As the *Asthi* and *Majjadhatus* are quite involved in *AmavataSnehapana* was surely help the patients.[9]
- ✓ *Virechanakarma* is described for the effective management of *Amavata* as a *Shodhana* therapy. It might be responsible for *Agnivardhana* and evacuation of *Ama*, which is the main culprit of this disease.
- ✓ *Kshara Basti* comprises of *Saindhava, Guda, Chincha, Shatahva*and *Gomutra*. In this *Basti*, maximum quantity is of *Gomutra*, which is having *Kshara Guna*. *Kshara* has the property of *Lekhana* and *Vishoshana*,[10] which are antagonistic to *Ama* and is very much required in the conditions like *Amavata*and also indicated in the condition of *Sula* and *Anaha*, in *Cakradatta*. After *Virechana*, the body cans response well to the *Kshara Basti*.
- ✓ *Chincha* to be taken in *Kshara Basti* should be in *Pakva* stage that is having *Vata-Kapha Shamaka*[11] property. Regarding *Purana Guda* to be used, it is *Laghu, Pathya, Annabhishyandi, Agnivardhaka* and *Vata-Pittaghna*.[12]*Saindhava* due to its *Sukshma* and *Tikshna*[13]property helps the *Basti Dravya* to reach up to the molecular level. It is capable of liquefying the viscid matter and breaking it into minute particles. Thus, solves both the purpose; to curing the disease and to purify the body.[14,15]
- ✓ In *KaishoraGugglu* combination, many drugs *(Gugglu, Haritaki, Bibhitaki, Amalki, Chinnaruha, Sunthi, Marica, Pippali, Krimiripu, Trvrit, Danti)*By virtue of these properties acts as antiallergic, antibacterial and blood purifying properties[16]-natural blood cleanser, aging skin health promoter, also can be used

to support healthy joints(in *amavata*),muscles(in fibromylegia),in back pain[17] and rheumatoid arthritis.

- ✓ *Bala taila* can be administered because chronic vatttik condition aggravation of *vata dosha* pacifies *vata* by *sneha,* makes soften body and eliminates accumulated *malas*. *Rasapanchaka* of *Bala Taila* having *UshnaVirya* and *Tridoshhar* property. *Taila*[18] and *Bala*[19] having *Vtaharanaam* property. *Therefore, Balataila* can be administered *shaman matra* because chronic *vatttik* condition aggravation of *vata* dosha pacifies easily. So, it should be treated on the principle of *Ama Dosha Pachana* and *Srotoshodhana*and *Vatahara* treatment.

▪ CONCLUSION-

The present study indicates that the diagnosis and line of treatment of '*Amavata'* is suitable to manage the condition. Especially Systemic Lupus Erythematosus (SLE), when it is associated with 'Rheumatoid Arthritis'. Ayurvedic treatment looks promising to manage Systemic Lupus Erythematosus (SLE) and its complications. On the basis of this case study it can be concluded that that Ayurvedic drugs like *Manjisthadi Kwath,, Kaishora Guggulu,Guduchi churna, Gokshura churna, Sunthichurna, Pippali Moola churna* are quite effective in treating SLE presenting with above situation.

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Figur A: Restricted movement on Neck region (Unable to Right lateral Flexion movement) [BF]

Figure B: Freely movement on Right lateral Flexion movement at Neck region[AF]

Figure C: Restricted movement on Neck region (Unable to Left lateral Flexion movement) [BF]

Figure D: Freely movement on Left lateral Flexion movement Neck region [AF]

Figure E: Freely movement on Neck Extension [AF]

Figure F: Ulnar Deviation, MCP Swelling, Left Wrist Swelling [BF]