

Integrative Ayurvedic Insights into Sjogren's Syndrome and Systemic Lupus Erythematosus: A Single Case Report

Omkumari Kumre,^{1*} Neha G. Tank²

¹PG scholar, ²Associate Professor, Department of Panchakarma, Institute of Teaching and Research in Ayurveda (INI), Jamnagar, Gujarat, India

ABSTRACT

Sjögren's Syndrome (SS) and Systemic Lupus Erythematosus (SLE) are chronic autoimmune disorders in which the immune system attacks the body's tissues. SS primarily affects moisture-producing glands, causing dryness of eyes and mouth, fatigue, and joint pain, while SLE involves multiple organs, including skin, joints, and kidneys. Conventional treatments with corticosteroids and immunosuppressants offer symptomatic relief but no definitive cure. A 46-year-old female patient with SS and SLE, presenting with dryness, swelling, joint pain, brittle nails, and liver dysfunction, was unresponsive to five years of conventional therapy. She underwent Ayurvedic management including *Shamana Chikitsa*, *Koshtha Shodhana* with *Eranda Taila*, *Matra Basti* with *Bala Taila*, and internal medications such as *Avipattikar*, *Satavari*, *Yashtimadhu Churna* and *Arogyavardhini Rasa*, *Liv-52 DS*, *Chandraprabha Vati*, and *Tab. Nirocil*. The patient demonstrated marked improvement in joint pain, weakness, swelling, dryness, and nail discoloration, along with normalization of liver function tests and disappearance of the ANA speckled pattern. Panchakarma therapies facilitated toxin elimination, balanced *Vata-Pitta doshas*, and nourished tissues, while herbal medications provided hepatoprotective, immunomodulatory, anti-inflammatory, and rejuvenative effects. This case highlights the potential of Ayurvedic interventions, combining Panchakarma procedures and herbal formulations, as an effective management strategy for autoimmune disorders like SS and SLE, particularly when conventional therapy is inadequate, offering clinical improvement without adverse effects.

KEY WORDS: *Ayurveda*, *Panchakarma*, Sjogren's syndrome, Systemic Lupus Erythematosus, *Vata* predominance *Vatarakta*.

Received: 22.10.2025 Revised: 09.11.2025 Accepted: 10.12.2025 Published: 15.12.2025



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/)
© 2025 International Journal of AYUSH Case Reports | Published by Tanaya Publication, Jamnagar.

QR Code



DOI 10.70805/ija-care.v9i4.821

*Corresponding Author:

Dr. Omkumari Kumre

PG scholar, Department of Panchakarma,
Institute of Teaching and Research in Ayurveda (INI),
Jamnagar, Gujarat, India

Email: omeekumre870@gmail.com

INTRODUCTION:

Sjögren's Syndrome uniquely exhibits autoimmune exocrinopathy characterized by lymphocytic destruction of exocrine glands and the presence of anti-Ro/La antibodies, whereas Systemic Lupus Erythematosus presents as a systemic, immune complex-mediated, multi-organ inflammatory disorder associated with anti-dsDNA antibodies.¹ Sjögren's Syndrome and SLE are chronic autoimmune diseases in which the immune system mistakenly attacks the body's own tissues. Sjögren's primarily targets the moisture-producing glands, causing dryness of the eyes and mouth, along with fatigue, and joint or muscle pain; systemic involvement may include the lungs, kidneys, and nervous system.² In contrast, SLE is a multisystem connective tissue disorder in which the immune system attacks healthy tissues such as the skin, joints, kidneys, and other organs, producing manifestations like fever, fatigue, myalgia, arthralgia, and arthritis.³ Both conditions predominantly affect women, particularly during the reproductive age. From an Ayurvedic perspective, these autoimmune pathologies may be correlated with Vata-predominant Vatarakta, where aggravated Vata Dosha obstructed by vitiated Rakta leads to degenerative and inflammatory manifestations.⁴ The immune-mediated hepatic involvement observed in such conditions results in impaired metabolic and physiological functions. While modern medicine offers symptomatic management through corticosteroids, NSAIDs, and immunosuppressants, it lacks a definitive cure. Conversely, Ayurvedic management provides a holistic approach aimed at balancing the body's doshas, detoxifying Ama, and strengthening Ojas (immunity), thereby offering effective and sustained relief without severe adverse effects.

CASE REPORT:

A 46-year-old female patient visited panchakarma department, ITRA Jamnagar on 26 November 2019, with first experienced eye dryness in 2013, which was relieved symptomatically. In 2015, she presented with generalized body swelling, body aches, weakness, dryness of the eyes, mouth, nose, and skin, along with numbness in both upper and lower limbs. In 2016, she developed fever, multiple joint pains with stiffness, brittle nails with black discoloration. She tested ANA positive in 2016. The patient suffered from episodes of jaundice in November 2019 and December 2020. She was treated with immunosuppressants and corticosteroids for approximately five years; however, her symptoms did not improve.

On examination, the patient looked ill, weak, pale, hemodynamically stable, febrile, well-oriented, and responding to commands. Her sclera was yellow; patient skin was dry, lusterless, with a yellowish hue. The pulse was 86 per minute, regular, and the blood pressure was within normal range. Per abdominal examination revealed tenderness in the right upper quadrant, soft, with normal peristaltic sounds. Cutaneous markers such as spider naevi were observed, with no ascites and no palpable lymph nodes. On systemic examination, the respiratory sounds were bilaterally equal, clear chest, no added sound present, and no obvious deformity, and S1 and S2 were audible, with no murmur. Gastrointestinal tract findings, such as decreased appetite and constipation, were present, and the patient also reported yellowish discoloration of urine. Other systems were normal. Personal history revealed that the Patient lost appetite with significantly less food intake due to dryness of mouth and twenty kg weight loss since the onset of the illness. Her bowel habit was once on alternate days and 6–7 times per day

urinary outputs. Sleep was slightly disturbed, mild irritability.

Ashtavidha Pariksha (Eight-fold examination):

Patient's Nadi (~Pulse) was *Niyamit*, *Mala* (~Stool) was *Asamyak* (~Constipated), *Mutra* (~Urine) passed 6-7 times a day, *Jivha* (~Tounge) was *Ishat Saam*, *Shabda* (~Voice) was clear, *Sparsha* (~Skin) had *Ushana*, *Druka* (~Eye) were *Saama*, *Akriti* (~Physical constitution) was *Avara*.

Diagnostic Assessment

1. On 4th September 2016, the antinuclear antibody (ANA) test by indirect immunofluorescence (IFA) was positive with a speckled pattern of grade 2+ intensity. On 30th April 2024, no speckled pattern was observed, only a homogeneous pattern with 4+ intensity was seen.

The ANA Report is shown in figure-1 and Figure-2

2. Changes in LFT Test are mentioned below-Table no. 1

TIMELINE AND INTERVENTION:

Initially, the patient was treated with internal medications for approximately six years. Subsequently, in November 2019, *Shaman Chikitsa* (~palliative therapy) was continued.

In February 2022, the patient was admitted for treatment, where *Koshta Shodhana* (~purgation therapy) was administered, followed by *Matra Basti* (~medicated enema) for 21 days. After discharge, *Shamana* (~palliative therapy) medications were continued on an outpatient basis. A second course of *Matra Basti* (~medicated enema) for 21 days was planned in January 2023, followed once again by continuation of *Shamana* (~palliative therapy) treatment.

Details are enlisted in the Table no. 2.1 and 2.2.

FOLLOW UP AND OUTCOME:

The patient was instructed to take oral medications regularly and to follow all dietary guidelines. She was treated on an outpatient basis and advised to return for follow-up every 14 days. Due to covid- 19 in 2020 and 2021, the patient was unable to come to the hospital, but the *shamana* treatment was continued and regular assessments were also being done. There was a reduction in multiple joint pains, weakness, swelling, dryness of the mouth, nose, and skin, along with improvement in brittle nails with black discoloration. In addition to the clinical improvement, the speckled pattern in the ANA profile had also disappeared and the normal range of LFT levels.

Table-1: Investigations

Year	Total bilirubin (mg/Dl)	Direct bilirubin (mg/Dl)	Indirect bilirubin (mg/Dl)	SGOT (AST)(U/L)	SGPT (ALT)(U/L)	Alkaline Phosphatase (U/L)
Normal Range	0-1.2	0-0.3	0.2-0.9	0-32	0-33	40-130
29/11/2019	10.9	9.9	1.00	493.6	849	115
23/12/2020	9.18	7.11	2.07	788.68	619.47	97.47
16/06/2021	0.65	0.37	0.28	60.81	44.36	92.33
11/07/2024	0.45	0.25	0.20	61.75	45.98	128.12
17/05/2025	0.80	0.43	0.37	131.02	45.98	110.73

Table-2: Timeline of the events:

18/08/2013	The patient took allopathic medicine when eye dryness occurred.
23/04/2015	Started experiencing swelling all over the body, along with dryness in the eyes, mouth, and nose, and numbness in the upper and lower limbs.
April 2015	neurologist visit
02/07/2016	Fever for 17 days, followed by multiple joint pains with stiffness after 1.5 months, along with brittle nails and black discoloration.
04/09/2016	ANA profile :Speckled pattern observed
October 2016-February 2019	Homeopathy visit
26/11/2019	The patient visited our hospital and was advised <i>Shamana</i> treatment.
29/11/2019	Episode of Jaundice
20/12/2020	Episode of Jaundice
30/04/2024	The speckled pattern in the ANA profile had disappeared; only a homogeneous pattern was observed.

Table-3: Therapeutic Intervention

Date	Procedure/Medication	Details
29/11/2019	1. <i>Avipattikar churna</i> 2gm <i>Satavari churna</i> 2gm <i>Yashtimadu churna</i> 2gm <i>Arogyavardhini ras</i> 250mg	Twice daily before meal with luke warm water
	2. Nirocil Tablet	2 Tablet thrice daily after meal with luke warm water
	3. Liv-52 DS	2 Tablet thrice daily after meal with luke warm water
	4. <i>Chandraprabha Vati</i> (SOS)	2 Tablet thrice after meal with luke warm water
12/02/2022 (Admitted in our hospital)	<i>Koshta shodhana</i> with <i>erand taila</i> dose 50ml	Number of <i>vegas</i> 05
	<i>Sarvanga Abhyanga</i> (local oil massage) with <i>Bala Taila</i> F/B <i>Patra Pinda swedana</i> (sudation by application of poultice prepared out of leaves)	Massage and fomentation all over the body
	<i>Matra Basti</i> (for 21 days)	<i>Bala Taila</i> 40ml
5/03/2022		Discharged <i>Shamana</i> continued
	1. <i>Avipattikar churna</i> 2gm <i>Satavari churna</i> 2gm <i>Yashtimadu churna</i> 2gm <i>Arogyavardhini ras</i> 250mg	Twice daily before meal with luke warm water

	2.Liv-52 DS	2 Tablet thrice daily after meal with luke warm water
16/01/2023	<i>Sarvanga Abhyanga</i> (local oil massage) with <i>Bala Taila</i> F/B <i>Patra Pinda swedana</i> (sudation by application of poultice prepared out of leaves)	Massage and fomentation all over the body
	<i>Matra Basti</i> (for 21 days)	<i>Bala Taila</i> 40ml
	Discharge on 05/02/2023	
5/02/2023	<i>Shamana</i> continued	
	1. <i>Avipattikar churna</i> 2gm <i>Satavari churna</i> 2gm <i>Yashtimadu churna</i> 2gm <i>Arogyavardhini ras</i> 250mg	Twice daily before meal with luke warm water
	2. <i>Chandraprabha Vati</i> (SOS)	2 Tablet twice after meal with luke warm water
	3.Liv-52 DS	2 Tablet thrice daily after meal with luke warm water
	4.Nirocil Tablet	2 Tablet thrice daily after meal with luke warm water




 <p>PID NO: P41160024846 Age: 39 Year(s) Sex: Female</p>		<p>Reference: <input type="text"/></p> <p>Sample Collected At: PARAM LAB- JAMNAGAR 1,OSHWAL COLONY,SUMER CLUB ROADJAMNAGER-361005 Zone: ZONE 7-JAMNAGAR361005</p>	<p>TEST REPORT</p> <p>VID: 41160123195 Registered On: 04/09/2016 09:45 AM Collected On: 04/09/2016 Reported On: 05/09/2016 05:51 PM</p>
<p>Investigation <u>Anti Nuclear Antibody by IFA</u> (Serum,Immunofluorescence)</p>	<p>Observed Value</p>	<p>Biological Reference Interval</p>	
<p>Result Pattern Grade Estimated Titre</p>	<p>POSITIVE SPECKLED ++ 1:80</p>	<p>NEGATIVE</p>	
<p>Interpretation Guidelines (Sample screening Dilution - 1:100):</p>			

Figure-1: Lab Investigation-BT





Unipath
SPECIALTY LABORATORY LIMITED

Raj-Sanskriti Complex, Ground Floor, Shop No.1, Opp. ST Bus Stand, Summair Club Road, Jamnagar - 361005.
Phone : 9081048486, Landline No. : 0288 2562221/24/26, CIN : U85195GJ2009PLC057059

TEST REPORT

Reg. No. : 40401605699 Reg. Date : 30-Apr-2024 16:08 Ref.No :

Name : [REDACTED]

Age : 46 Years Gender: Female Pass. No. :

Ref. By : Dr. JAY BHATT. M.D. DM. (GASTRO-ENTEROLOGY)

Location : UNIPATH COLLECTION CENTRE - AARYA GASTRO & CANCER CLINIC @ JAMNAGAR

Approved On : 01-May-2024 18:58

Collected On : 30-Apr-2024 16:08

Dispatch At :

Tele No. : 9427941807

Test Name	Results	Units	Bio. Ref. Interval
ANTI NUCLEAR ANTIBODY (ANA)			
Method : Indirect Immunofluorescence Assay (IFA)			
Dilution	1:100 and 1:200		
Pattern ANA	Homogenous pattern seen.		None
Intensity	4+		None
Interpretation	Patient sample is positive for ANA.		
Suspected antigen specificity	nDNA, dsDNA, ssDNA, DNP, histone, other chromatin antigens		
Clinical significance	Systemic lupus erythematosus, Drug induced lupus, Rheumatoid arthritis.		

Figure-2: Lab Investigation-BT

DISCUSSION:

Sjögren's syndrome and systemic lupus erythematosus are chronic autoimmune diseases with multi-organ involvement, in which the liver is a frequent extra-glandular target. In Sjögren's syndrome, liver damage primarily occurs through autoimmune injury to the bile ducts and hepatocytes, whereas in SLE it is mainly caused by immune complex deposition and vascular inflammation. Despite these differences, both conditions share the fundamental mechanisms of autoimmunity and chronic inflammation.⁵⁻⁷ In *Ayurveda*, *Koshtha Shodhana* with *Eranda Taila* (~castor oil) is considered the initial step of management, aimed at eliminating *Ama* (~toxins) and regulating *Jatharagni* (~digestive fire). This cleansing process reduces systemic inflammation, improves drug absorption, and prepares the body for further therapeutic interventions. Following purification, *Matra Basti* with *Bala Taila* is recommended as a gentle, small-dose enema for pacifying aggravated *Vata* and *Pitta doshas*. It nourishes the tissues, alleviates dryness and weakness, and calms *Vata*, while its cooling and

soothing properties help balance *Pitta* by reducing inflammation, burning sensations.⁸ *Bala Taila* (~*Sida cordifolia* Linnaeus) is characterized by *Madhura Rasa* (~sweet taste), *Sheeta Veerya* (~cool potency), and properties such as *Balya* (~strength-promoting),⁹ *Snigdha* (~unctuous), *Vatahara* (~vata-pacifying), *Brimhaniya*,¹⁰ *Ojovardhaka* (~Immunity)¹¹ and *Rasayana* (~rejuvenation).¹²

Internal Medications

Avipattikar Churna:

Avipattikara Churna is a classical Ayurvedic herbo-mineral formulation indicated for disorders associated with aggravated *Pitta Dosha*, particularly those involving the gastrointestinal tract. The formulation is developed based on the pharmacodynamic principles of *Rasa* (~taste), *Guna* (~attributes), *Virya* (~potency), and *Vipaka* (~post-digestive effect), ensuring a synergistic approach to restoring doshic balance. The constituent herbs predominantly possess *Katu* (~pungent), *Tikta* (~bitter), and *Madhura* (~sweet) *Rasa*, along with *Laghu* (~light), *Ruksha* (~dry),

Tikshna (~sharp), and *Snigdha* (~unctuous) *Guna*, which collectively pacify aggravated Pitta and promote optimal digestive function. *Trivrut* (*Operculina turpethum* (L.) Ipomoea turpethum), the principal ingredient, exhibits *Bhedana* (~purgative), *Rechana* (~laxative), and *Shothahara* (~anti-inflammatory) properties that facilitate *Pitta-Rechana* (~elimination of vitiated Pitta) and interrupt the *Samprapti* (~pathogenesis) of *Pittaja Vyadhi* (~Pitta-dominant disorders). This action is further enhanced by *Triphala*, whose components possess *Mridu Rechana* (~mild laxative) and *Anulomana* (~carminative) effects, promoting intestinal cleansing and supporting detoxification. *Lavanga* (~*Syzygium aromaticum* (L.) Merr. and L.M. Perry) contributes *Vatanulomana* (~regulation of Vata flow) and analgesic properties, alleviating *Shula* (~colicky pain) and improving digestive comfort. *Khanda Sharkara* (~rock sugar) provides cooling, demulcent, and *Pitta-shamaka* (~Pitta-pacifying) effects, ensuring formulation balance and enhancing palatability and patient compliance.¹³⁻¹⁸

Shatavari Churna:

Shatavari (*Asparagus racemosus* (L.) Willd.) exhibits a *Brimhana* (~anabolic or tissue-building) effect, nourishing body tissues and promoting vitality. It possesses *Madhura* (~sweet) and *Tikta* (~bitter) *Rasa* (~taste), *Guru* (~heavy) and *Snigdha* (~unctuous) *Guna* (~qualities), *Sheeta* (~cool) *Veerya* (~potency) and *Madhura* (~sweet) *Vipaka* (~post-digestive effect) leading to *Vata-Pitta Shamana* (~pacification of Vata and Pitta doshas), mainly balancing *Pitta Dosha*.¹⁹ Rich in saponins and flavonoids, it shows strong antioxidant and anti-inflammatory properties, reducing pro-inflammatory cytokines by about 25% in vitro. As a potent *Rasayana* (~rejuvenator), it nourishes *Rasa Dhatu*, enhances immunity, supports reproductive health, and promotes longevity.²⁰

Yashtimadhu Churna:

Yashtimadhu (*Glycyrrhiza glabra* (L.) Carl Linnaeus) possesses *Madhura Rasa*, *Guru* and *Snigdha Guna*, *Madhura Vipaka*, and *Sheeta Virya*. It acts as a *Vata-Pitta Shamak* and has a *Rasayana* (~Rejuvenation) effect.²¹ Its principal constituent, glycyrrhizin—a saponin glycoside that is about 50 times sweeter than sucrose—gives *Yashtimadhu* its characteristic sweet taste.²² The bioactive compounds present in its roots contribute to anti-inflammatory, antioxidant, and hepatoprotective activities, as well as support the regulation of liver enzymes.²³⁻²⁴

Arogyavardhani Rasa:

Arogyavardhini Vati—derived from *Arogya* (~good health) and *Vardhini* (~enhancer)—is a classical Ayurvedic formulation that promotes overall well-being.²⁵ It primarily contains *Parada* (~Purified Mercury), *Gandhaka* (~Purified Sulphur), *Abbraka* (~Purified Mica), and *Katuki* (*Picrorhiza kurroa* (L.) Royle ex Benth). This formulation is revered for its broad-spectrum therapeutic efficacy. It acts as a *Koshta Shodhana* and *Tridosha Shamaka* (~balancer of all three doshas), enhancing *Deepana* (~digestive stimulation), *Pachana* (~detoxification), and *Dhatu Prasadana* (~tissue nourishment and purification).²⁶

Pharmacologically, *Arogyavardhini Vati* supports hepatic function, facilitates bile secretion, promotes metabolic detoxification, and exhibits anti-inflammatory and antioxidant activities, thereby maintaining digestive health, improving nutrient assimilation, and serving as an effective hepatoprotective and metabolic tonic.²⁷

Liv 52 DS:

The synergistic polyherbal activity of Liv.52 DS arises from its diverse ingredients, each contributing potent hepatoprotective and

hepatocurative effects. It contains *Himsra* (*Capparis spinosa* L.), *Kasani* (*Cichorium intybus* L.), *Mandur Bhasma* (calcined iron oxide), *Kakamachi* (*Solanum nigrum* Linn.), *Arjuna* (*Terminalia arjuna* (Roxb. Ex DC.) Wight & Arn.), *Kasamarda* (*Senna occidentalis* Link.), *Biranjaisipha* (*Achillea millefolium* L.), and *Jhavuka* (*Tamarix gallica* L.). These constituents collectively enhance liver function by stimulating bile secretion, improving appetite and digestion, and protecting hepatocytes from toxins. Through its digestive, antioxidant, and antihepatotoxic properties, Liv.52 DS supports hepatic regeneration, prevents lipid peroxidation, and promotes overall liver health and metabolic balance.²⁸⁻³¹

Chandraprabha Vati:

Chandraprabha Vati is a classical Ayurvedic formulation known for its *Tridoshaghna* (~balancing all three doshas) and mainly *Vata-Kapha Shamaka* (~pacifying *Vata* and *Kapha*) action. It contains *Trivrit* (*Operculina turpethum* L. Silva Manso), *Pippalimoola* (*Piper longum* Carl Linnaes), *Guggulu* (*Commiphora wightii* (Arnott) Bhandari), *Yavakshara* (*Hordeum vulgare* Carl Linnaes), *Karpooora* (*Cinnamomum camphora* (L.) J.Presl), *Musta* (*Cyperus rotundus* Linn.), *Haritaki* (*Terminalia chebula* Retz), *Vibhitaki* (*Terminalia bellirica* (Gaertn.) Roxb.), *Amalaki* (*Phyllanthus emblica* L.), and *Shilajatu* (*Asphaltum punjabianum*). These ingredients exhibit analgesic, anti-inflammatory, and rejuvenative properties. In *Yakrut Vikara* (~liver disorders), its *Tikta-Katu Rasa* (~bitter-pungent taste), *Kapha-hara* (~Kapha-pacifying), *Mutrala* (~diuretic), *Agni Dipana* (~digestive stimulant), and *Rasayana* (~rejuvenating) actions aid detoxification, enhance hepatic function, and promote liver regeneration.³²⁻³³

Nirocil tablet:

Nirocil tablet contains a single herb, *Tamalaki* (*Phyllanthus fraternus* Webster), known for its potent hepatoprotective and immunomodulatory effects. It possesses *Tikta* (~bitter), *Kashaya* (~astringent), and *Madhura* (~sweet) *Rasa* (~taste), and acts as a *Kapha-Pitta Shamaka* (~balancer of *Kapha* and *Pitta* doshas).³⁴ *Tamalaki* supports liver detoxification, enhances bile secretion, and exhibits anti-inflammatory properties that minimize hepatic injury and improve liver function. Its strong antioxidant activity neutralizes free radicals, reducing oxidative stress. Additionally, Nirocil promotes hepatocellular regeneration, regulates liver enzymes involved in bile metabolism, and alleviates symptoms associated with jaundice, thereby maintaining optimal hepatic health and metabolic balance.³⁵⁻³⁶

CONCLUSION:

Sjögren's syndrome (SS) and Systemic Lupus Erythematosus (SLE) are rare diseases whose incidence is either rising or remaining stable depending on the region. In modern medicine, these conditions are not curable and are usually managed with steroids, which may cause adverse effects on other organs and pose significant health risks. In this single-case study, the patient experienced remarkable relief from signs and symptoms, with no relapse to date. The Ayurvedic intervention demonstrated a positive outcome in an autoimmune disorder. Along with hepatoprotective medicines, *Koshta Sodhana* and *Matra Basti* therapies played a vital role in the management of the condition. This case report highlights the potential of Ayurvedic interventions as effective treatment options for such disorders.

Consent of patient:

The informed written consent of the patient has been taken before starting treatment and for publication of reports without disclosing the identity of patient.

Conflict of interest: The author declares that there is no conflict of interest.

Guarantor: The corresponding author is the guarantor of this article and its contents.

Source of support: None

How to cite this article:

Omkumari Kumre, Neha G. Tank. Integrative Ayurvedic Insights into Sjogren's Syndrome and Systemic Lupus Erythematosus: A Single Case Report. Int. J. AYUSH CaRe. 2025;9(4):837-847.

REFERENCES:

1. pubmed.ncbi.nlm.nih.gov
<https://share.google/vxrt62YHqbZzyo2dW> 2020 May 4.
2. Rutuja Mahendra Jadhav, Nutan Radaye, Role of Basti and Snehana putapaka in the management of shushkaakshipaka with respect to Sjogrens syndrome: A case report, international journal of ayurvedic and pharma research, 2024 ;12 (3).
3. Praveen kumar K S, S Mahesh, Ayurvedic management of SLE: A case Study, journal of ayurvedic and integrated medical sciences;2023; 8(2).
4. Kashinath Shashtri, charaka Samhita, Chikitsa sthana 29/ 25-26 Chaukhambha Bharti academy, Varanasi, 2011. P- 823
5. Fox RI. Sjögren's syndrome. Lancet.jul 2005;366(9482):321–331.
6. Piga M, Vacca A, Mathieu A. Systemic lupus erythematosus and liver involvement: a review of the literature. Hepatology International. 2017;11(3):189–204.
7. Selmi, C., Gershwin, M. E. et al. "Chronic Autoimmune Epithelitis in Sjögren's Syndrome and Primary Biliary Cholangitis: A Comprehensive Review." 2017. Reviews SS and PBC, showing immune-mediated injury of small bile ducts as part of SS-associated liver involvement.
8. Yadukrishnan V. P, Praveen B. S, A Comparative Clinical Study on Matra Basti with Bala Taila and Sahachara Taila, International Ayurvedic Medical Journal, doi:10.46607/iamj0109112021, ISSN:2320-5091, November 2021
9. Pandit Narahari by Dr.Indradev Tripathi, Rajanighantu, Chowkhambha Krishnadas Academy, Varanasi. 2006. P-107
10. Priya Nighantu, second edition, Chaukhambha prakashan Varanasi, 1995. p-94
11. Adarsh Vidya Niketan, Dhanwantari Nighantu, verse no. 280, 281, Varanasi, 1985. p. 96-97
12. Kaviraj Dr. Ambika Dutta Shashtri, Sushrut Samhita part 1, Chikitsa Sthana Chapter 27/10. Chaukhamba Sanskrita Sansthan, Varanasi, 2021.p-153
13. Sri Bhavamishra, Bhavaprakash Nighantu, Commentary by K C Chunekar, edited by G S Pandey, Choukamba Bharati Academy, Varanasi: Revised & Enlarged ed. 2010; p- 39-40.
14. Sri Bhavamishra, Bhavaprakash Nighantu, Commentary by K C Chunekar, edited by G S Pandey, Choukamba Bharati Academy, Varanasi: Revised & Enlarged ed. 2010; p-166.
15. Tamhane MD, Thorate SP, Rege NN, Dahanukar SA. Effect of oral administration of Terminalia chebula on gastric emptying: An experimental study. J. Postgrad. Med., 1997; 43 (1): 12-13.

16. Chattopadhyay RR, Bhattacharyya SK. Plant review Terminalia chebula: An update. Pharmacog Rev 2007 1:151-156.
17. Al-Yahya MA, Rafatullah S, Mossa JS, Ageel AM, Parmar NS, Tariq M. Gastroprotective activity of ginger Zingiber officinale Rosc., in albino rats. American Journal of Chinese Medicine. 1989;17(1-2):51-56.
18. Bhande RM, Laakshmayya Kumar P, Mahurkar NK, Ramachandra Setty S. Pharmacological screening of root of Operculina turpethum and its formulations. Acta Pharm Sci. 2006; 48:11-7.
19. Dr. Tulsiram Alawe and Dr. Mahesh Narayan Gupta; A comparative study of satavari and yashtimadhu churna in karshya W. S. R. to malnourished child. 2025vol 11, issue 2.
20. Mashitha Vinod Pise, Jaishree Amal Rudra, Avinash Upadhyay, Immunomodulatory potential of Shatavari produced from Asparagus racemosus tissue cultures, National Library of medicine, National center for Biotechnology information, J Nat Sci Biol Med. 2015 Jul- Dec;6(2):415-420. doi: 10.4103/0976-9668.160025.
21. Dravyaguna Vigyana Vol. II, by Prof. P.V. Sharma, Chaukhambha Bharati Academy, Reprint 1998; p-253.
22. Vrinda madhava edited and translated by Dr. Premvati Tewari, Chaukhambha Bharati Academy, Chapter 44/34; 1 st edition 2007. P-436,
23. Yokota T, Nishio H, Kubota Y and Mizoguchi M. The inhibitory effect of glabridin from liquorice extracts on melanogenesis and inflammation. Pigm Cell Res, 1998; 11: 355-361.
24. u HS, Li XJ, Zhao BL, Han ZW and Xin WJ, Effects of Glycyrrhiza flavonoid on lipid peroxidation and ac-tive oxygen radicals. Yao Xue Xue Bao, 1989; 24:8-12-07.
25. Preetimayee sahuo, nihar Ranjan mahanta, Sanjay kumar Mishra Arogyavardhini Vati – Critical analysis of a miracle drug 2024;7(1):86-96.
26. Nathusinh Ji T. Rasatantra Sara evum Siddhayoga Sangraha, Pratham Khanda. 32nd ed. Rajasthan: Krishna Gopal Ayurved Bhavan; Gutikaparakarana 2023; p- 250.
27. Preetimayee sahuo, nihar Ranjan mahanta, Sanjay kumar Mishra Arogyavardhini Vati – Critical analysis of a miracle drug 2024;7(1):86-96.
28. Choudhary S, Kaurav H, Chaudhary G. Kasanibeej (Cichorium intybus): Ayurvedic view, folk view, phytochemistry and modern therapeutic uses. Int J Res Appl Sci Biotechnol 2021; 8:114-25.
29. El Tanbouly N, Joyeux M, Hanna S, Fleurentin J, El Alfy T, Anton R. Anti-hepatotoxic effect of aqueous extracts from Capparis spinosa. Planta Med 1989; 55:95-95.
30. Kulisic-Bilusic T, Balzevic I, Dejanovic B, Milos M, Pifat G. Evaluation of the antioxidant activity of essential oils from caper (Capparis spinosa) and sea fennel (Crithmummaritimum) by different methods. J Food Biochem 2010; 34:286-302.
31. Mehmood N, Zubair M, Rızwan K, Rasool N, Shahid M, Ahmad VU. Antioxidant, antimicrobial, and phytochemical analysis of Cichorium intybus seeds extracts and various organic fractions. Iranian J Pharm Res 2012; 11:1145.
32. Nathusinh Ji T. Rasatantra Sara evum Siddhayoga Sangraha, Pratham Khanda. 32nd ed. Rajasthan: Krishna Gopal

- Ayurved Bhavan; Gutikaprakarana 2023. P-311.
33. Kadwalia Geetika, Dr. Sood Prashant and Dr. Guleria Praveen, World Journal of Pharmaceutical Research, Chandraprabha vati in mutrakrichhra - A review, doi :10.20959/wjpr20188-11864.
34. Mishra BS and Baishya RL, Bhavaprakasha of Shri Bhava Mishra, Chaukhambha Sanskrit Sansthan, Varanasi, Guduchyadi Varge; 1999 p-277-278.
35. Thyagarajan SO, Subramanian S, Thirunalasundari T, Venkateswaran PS and Blumberg BS, Effect of Phyllanthus amarus on chronic carriers of hepatitis B virus, Lancet, 2(1988) 764-766.
36. Chaithra L. N., Mahalakshmi K. S. and Dr. Kavitha P. N. Bhumiamalaki In The Management Of Jaundice: A Comprehensive Review, World Journal of Pharmaceutical and Life Science, 2024, Issue 6, Vol 10.