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An Ayurvedic Approach to Granulomatous Uveitis– A Case Study

Prof. Shamsa Fiaz * Dr. Sanfi APM Dr. Hemanta Gautam*****

* Professor & Head, Department of Shalakyatantra, National Institute of Ayurveda (DU), Jaipur. https://orcid.org/0000-0001-5039-339X

** Presently, P.G. Scholar, Department of Shalakyatantra, National Institute of Ayurveda (DU), Jaipur. https://orcid.org/0009-0000-6604-1006

*** Presently, P.G. Scholar, Department of Shalakyatantra, National Institute of Ayurveda (DU), Jaipur. https://orcid.org/0009-0002-1882-4406

Abstract

Introduction:

Granulomatous uveitis is an inflammatory condition of the uveal tract characterized by granuloma formation, which can arise from infectious or non-infectious causes. It is often associated with systemic diseases and may lead to vision impairment, especially in cases involving posterior uveitis. Treatment is complex, requiring a multifaceted approach to manage both the underlying cause and inflammation. While conventional therapies typically include corticosteroids, immunosuppressants, and antimicrobial agents, Ayurvedic approaches have also been explored for managing granulomatous uveitis. This case study examines the impact of Ayurvedic treatment on a patient with bilateral non-infective granulomatous posterior uveitis.

Methods:

A 29-year-old female patient with a history of bilateral non-infective granulomatous posterior uveitis and vitritis, unresponsive to conventional steroid therapy, was treated with Ayurvedic interventions. These included Shodhana (purification therapies), Snehapana (medicated ghee), Sarvanga Abhyanga (full-body massage), Virechana (purgation), and topical treatments like Netra Parisheka (eye wash) and Nasya (nasal therapy). Internal Ayurvedic medicines, including

Panchatikta Guggulu Ghruta, were prescribed along with supportive therapies. Follow-up assessments were conducted to evaluate visual acuity and symptom relief.

Results:

The patient demonstrated significant improvement in visual acuity, with the left eye achieving 6/12 vision and the right eye improving to 6/36 with pinhole correction. Symptom relief was also noted, with reductions in eye redness, lacrimation, and floaters. These improvements were sustained over follow-up periods, with no recurrence of major symptoms, indicating positive outcomes from the Ayurvedic treatment approach.

Discussion:

The Ayurvedic approach to managing granulomatous uveitis, focusing on holistic treatments like purification and internal medicines, showed promising results in this case. The improvement in visual acuity and symptom management suggests that Ayurvedic treatments may offer an effective adjunct to conventional therapy, particularly in cases where standard treatments are inadequate or contraindicated. However, further controlled studies are needed to validate these findings and assess the long-term efficacy of Ayurvedic treatments for uveitis.

Keywords: Granulomatous Uveitis, Ayurvedic Treatment, Sashopha Akshipaka, Jalokaavacharana

Address for Correspondence:
Dr. Hemanta Gautam, PG Department of Shalakyatantra, National Institute of Ayurveda (DU), Jaipur.
Email Id: hemanta.gautam.125@gmail.com

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Introduction

Granulomatous uveitis refers to inflammation of the uveal tract, characterized by the formation of granulomas due to infectious or non-infectious causes. It may involve the iris, ciliary body, and choroid, and can be classified into anterior, intermediate, posterior, or panuveitis based on the anatomical site of inflammation. Granulomatous uveitis is further categorized by its etiology into infectious (e.g., Tuberculosis, Syphilis) or non-infectious (e.g., Sarcoidosis, Vogt-Koyanagi-Harada disease) causes. Histologically, it is characterized by a granulomatous response that often includes multinucleated giant cells and epithelioid cells. Granulomatous uveitis may be associated with systemic diseases and, in some cases, may be the first manifestation of a serious underlying condition.

The underlying pathophysiology involves an immune response to a specific antigen, leading to granuloma formation. In infections like tuberculosis, the antigen is typically microbial, whereas in non-infectious conditions like sarcoidosis, the exact antigen remains unidentified. The activation of T-helper cells, macrophages, and the release of pro-inflammatory cytokines like TNF-α and IFN-γ contribute to granuloma formation. Granulomatous uveitis can affect various parts of the eye, with posterior uveitis potentially causing permanent vision impairment.

The middle layer of the eye, also known as the uvea (uva or "grape" in Greek), is made up of the iris, the ciliary body, and the choroid. Uveitis is an inflammation of the middle layer of the eye which can involve one, two, or all three parts of the uveal tract. It can be classified in several ways; anatomically into anterior, intermediate, posterior, or panuveitis according to the site of inflammation, etiologically into infectious or non-infectious uveitis according to the underlying cause, and histopathological into granulomatous or non-granulomatous uveitis according to the immunological response of the body to the cause of uveitis.[1]

The exact pathophysiology of granulomatous uveitis depends on the underlying cause. However, a similar general mechanism is responsible for forming granulomas in most granulomatous inflammations regardless of the causative antigen. Tissue-resident antigen-presenting cells, such as dendritic cells and monocytes circulating in the blood, are responsible for first detecting an antigen, which is then presented to T helper cells, which in turn results in

recruitment and activation of more circulating monocytes and lymphocytes into the affected tissue, with the production of various cytokines and chemokines including tumour necrosis factor-alpha and interferon-gamma that are responsible for regulating granulomatous immune responses, and the formation of epithelioid and multinucleated giant cells by the activated macrophages. These cells assemble around the culprit antigen, leading to granuloma formation.[2][3][4]

This antigen may be of bacterial origin as in tuberculosis or of unknown origin as in sarcoidosis. [5] In lymphoma cases, inflammation may be due to a host immune response to lymphomatous cells or a paraneoplastic granulomatous inflammation. In contrast, in Vogt-Koyanagi-Harada disease and sympathetic ophthalmia, the altered immune response may be directed towards melanocytes. [6]

Impairment in the immunosuppressive role of regulatory T cells may also contribute to the exaggerated immune response in granulomatous uveitis. Simultaneously, specific HLA class II antigens may play a role in the development of granulomatous inflammation. Blau syndrome is a monogenic familial autoinflammatory systemic granulomatous disease associated with a mutation in the NOD2 gene. This gene encodes a protein that is a member of the pattern-recognition intracellular receptor family, expressed in macrophages, monocytes, and dendritic cells, and plays an important role in the innate immune defence system against pathogens. [7,8]

The mutation leads to the unfolding of the NOD2 protein from its autoinhibited state, leading to the hyperactivation of nuclear factor kappa B and the excessive production of inflammatory cytokines and chemokines, which results in systemic granulomatous inflammation, including skin rash, arthritis, and granulomatous uveitis. [9]

Patients with uveitis usually present with the blurring of vision, ocular pain, redness, and photophobia. These may vary according to the anatomical location of the inflammation. Anterior segment examination of a patient with granulomatous uveitis may reveal ciliary injection, elevated or decreased intraocular pressure, mutton fat keratic precipitates (large deposits on the back of the cornea), anterior chamber flare and cells, iris, and angle granulomas, anterior and posterior synechia, cataract especially posterior subcapsular, cataract surgery in phaco anaphylactic uveitis and anterior vitreous cells.

Posterior segment examination

may show vitritis, vitreous opacities, snowballs, snow banking in intermediate uveitis, perivascular exudates, retinal haemorrhages in retinal vasculitis, cystoid macular edema, and optic disc edema, as well as posterior segment complications such as choroidal neovascularization, retinal neovascularization, and epiretinal membrane.[10]

Inflammation of uveal tissue from iris to pars plicata of ciliary body is called anterior uveitis, inflammation of pars plana and peripheral part of retina and underlying choroid is called intermediated uveitis and inflammation of choroid is called posterior uveitis. [11]

In posterior uveitis along with choroid it may also affect the retina and/or the optic nerve and may lead to permanent loss of vision. It is one of the rare forms of uveitis among all other types. It is a painless condition usually characterized by visual symptoms like defective vision, photopsia, floaters, metamorphopsia and positive scotoma. This condition affects males and females in equal number and it appears most often to occur between ages of 20 and 50 years. The management of granulomatous uveitis is challenging. It includes treatments based on underlying cause ,antiinflammatory treatments , surgical interventions, antimicrobial or anti tubercular management should be adopted if the cause is infectious ,while Corticosteroids and immune suppressor which tailored to specific auto immune conditions are administered if the cause is inflammatory. vitrectomy may be considered in the case of severe complications like macular edema, vitreous opacities.

Effective management of granulomatous uveitis is multifactorial, requiring a comprehensive approach by addressing the underlying cause and preventing vision loss. This often includes antimicrobial treatment, immunosuppressive therapy, and surgical interventions when necessary. Challenges in management includes accurate diagnosis, monitoring treatment responses, managing side effects, handling disease recurrence, and preserving vision. The symptoms of granulomatous uveitis can be correlated with the Ayurvedic concept of *Sashopha Akshipaka*(~panopthalmitis). [12] Ayurvedic treatment approaches have been explored for managing this condition with improvement in visual acuity to 6/12 in the left eye and counting finger 2 .5 mt with a pinhole correction of 6/36 in the right eye. Slit-lamp examination revealed pigmentary deposits in both eyes, with posterior capsular opacification (PCO) in the right eye. Fundus examination showed bilateral macular edema and signs of peri-

papillary atrophy.

Patient Information:

A 29-year-old female patient presented to the Shalakya Tantra OPD at NIA Jaipur with a four-year history of bilateral non-infective granulomatous posterior uveitis with vitritis. She also reported a two-year history of persistent headaches. Initially, the patient was managed with oral and topical corticosteroids, which provided temporary symptomatic relief. However, her symptoms recurred after the steroids were withdrawn during pregnancy and again following cataract surgery.

The patient was apparently asymptomatic until four years ago, after which she gradually developed bilateral diminution of both distant and near vision, along with redness, watering, and photophobia. During this period, she received posterior sub-tenon injections of Tricort 40 mg in both eyes, which again provided only transient relief. Despite continued use of steroids, within three months her symptoms worsened, now accompanied by severe eyelid oedema.

Steroids were discontinued temporarily due to her pregnancy and were later reintroduced postpartum. Within the span of one year post-delivery, the patient developed bilateral cataracts, for which she underwent surgical intervention, spaced one year apart between each eye.

In addition to ocular complaints, the patient had a history of multiple joint pains and was prescribed methotrexate, which initially provided relief for over a year. However, she began experiencing side effects such as persistent headaches, lethargy, and weight gain. As a result, methotrexate was discontinued in March 2024.

There was no history suggestive of tuberculosis, hypertension, or diabetes mellitus.

Treatment Timeline Summary:

- Four years ago: Onset of ocular symptoms.
- First year: Steroid therapy initiated, including posterior sub-tenon Tricort injections.
- Pregnancy period: Temporary withdrawal of steroids.
- Post-delivery: Symptoms recurred, steroids resumed; developed bilateral cataracts.
- Within a year post-delivery: Cataract surgeries performed one year apart for each eye.
- Concurrent systemic symptoms: Methotrexate used for >1 year, discontinued in March 2024 due to adverse effects.

- As the patient had been on prolonged steroid therapy and methotrexate, any integrative Ayurvedic intervention must account for potential drug interactions, cumulative immunosuppression, and the patient's recent systemic vulnerability. Close monitoring is advised to manage risks of reactivation of inflammation or complications from previous therapies.

Clinical Findings:

- Pulse rate – 76/min
- Respiratory rate – 18/min
- Temp -98.60°F
- BP- 120/80 mm of Hg

Systemic Examinations

Systemic examinations has been shown in table no.1

Table no:1, Systemic examination

1	Respiratory System	Bilateral normal vesicular breath sounds, bilateral equal air entry
2	Cardio vascular System	No added sound, cardiac dullness noted
3	Per Abdomen	No tenderness and organomegaly noted
4	Musculoskeletal system	Multiple joint tenderness and stiffness of upper limb, lower back pain
5	Central Nervous System	Well oriented to time, place and person.

Ophthalmic examinations

Opthalmic examinations has been shown in table no.2.

Table no:2, Ophthalmic examination

Right eye	**Structures**	**Left eye**
Normal	Eye brows	Normal
Normal	eye lashes	Normal
Normal	eye lids	Normal
Normal	conjunctiva	Normal
Normal	cornea	Normal
Irregular size and nonreactive	pupil	Festooned pupil and mild reactive
Quite	Anterior chamber-	Quite
Pigmentary deposits in 7,8 clock position, PCO	Lens	Pigmentary deposits in 3 clock position .
Dilated fundoscopy		
Size- Normal shape- Vertically oval, margin- Peri papillary atrophy ,color– pale CDR – 0.3-0.4	Optic Disc	Size- Normal shape- Vertically oval, margin- Peri papillary atrophy ,color– pale CDR – 0.3-0.4

Macula		
Reduced	Foveal reflex	Reduced
Small drusen's present near nasal side of macula . Tessellated fundus	General background	Small drusen's present near nasal side of macula Tessellated fundus
Signs of macular edema	Optical coherence tomography (OCT)	signs of macular edema

Diagnosis assessment:

Diagnosis:

Based on the patient's clinical presentation, she was diagnosed with *Sashopha Akshipaka* in Ayurveda, which is a condition closely resembling panophthalmitis in modern medicine. This diagnosis was made by correlating her ocular complaints with classical Ayurvedic descriptions and considering the chronic inflammatory pathology observed in granulomatous uveitis.

Laboratory Investigations:

Erythrocyte Sedimentation Rate (ESR):

07/2022 – 17 mm/hr

06/2023 – 35 mm/hr

11/2023 – 46 mm/hr

05/2024 – 44 mm/hr

C-Reactive Protein (CRP): 6.67 mg/L (weakly positive)

These values indicate a progressive and ongoing inflammatory process consistent with chronic uveitis.

Ayurvedic Interpretation:

In Ayurvedic pathology, *Sashopha Akshipaka* is a severe inflammatory eye disorder characterized by symptoms that correspond closely with modern descriptions of panophthalmitis and granulomatous uveitis. The term "*Sashopha*"implies associated with swelling, and "*Akshipaka*" indicates a destructive, painful inflammation of the eye.

In this patient, vitiation of *Pitta* and *Kapha doshas* was observed:

Pitta Dosha vitiation led to:

Netra Raga (reddening or congestion of the bulbar conjunctiva)

Prakasha Asahata (photophobia or intolerance to light)

Netra Shoola (ocular pain or discomfort)

Kapha Dosha vitiation was evident in:

Varthma Shopha (eyelid swelling)

Multiple joint swellings and stiffness, which are also indicative of systemic Kapha involvement

Additional classical signs of *Sashopha Akshipaka* noted include:

- *Kandu* (itching sensation)
- *Upadeha* (mucous discharge)

- *Ashrutya* (excessive tearing or lacrimation)
- *Pakwa Udumbarasannibha* (redness of the eye resembling the ripe *Udumbara* fruit, Ficus racemosa)
- *Daha* (burning sensation)
- *Taamrata* (coppery discoloration)
- *Sopha* (oedema)
- *Nisthoda* (sharp, pricking pain)
- *Samharsha* (horripilation or chills)

Modern-Ayurvedic Correlation:

Granulomatous uveitis is known to present with signs such as:

- Ocular pain
- Redness
- Blurred vision
- Photophobia
- Floaters

Clinical signs: mutton-fat keratic precipitates, ciliary injection, anterior chamber flare, and cells

These manifestations closely align with the Ayurvedic descriptions above. Though histopathological confirmation is not routinely done in such cases, the chronic inflammation inferred from laboratory markers like ESR and CRP supports the clinical correlation. The presence of systemic joint involvement further strengthens the Ayurvedic interpretation involving multi-systemic dosha imbalances.

This integrative approach to diagnosis—linking classical Ayurvedic descriptors with contemporary clinical findings—ensures both comprehensive assessment and a holistic understanding of the disease, which is critical when considering subsequent Ayurvedic management.

Timeline:

Treatments and timeline is presented on Table number 3.

Table no:3, Timeline

Date / Day	Event	Details
~2019	Onset of symptoms	Gradual onset of bilateral diminution of vision, redness, watering, photophobia. Diagnosed with bilateral non-infective granulomatous posterior uveitis with vitritis.
2019–2023	Allopathic management	Received topical/oral steroids and Tricort 40 mg injections with temporary relief. Symptoms aggravated post-pregnancy and post-cataract surgeries. Methotrexate used

		for joint pain, later stopped due to side effects.
March 2024	Stopped Methotrexate	Due to adverse effects including headache and weight gain.
Day 0 (27 April 2024)	First Ayurvedic consultation	Diagnosed as *Sashopha Akshipaka* (~panophthalmitis). Complaints: Redness, lacrimation, floaters, and headache. Steroids discontinued.
Day 1–3 (27–29 April 2024)	*Amapachana / Deepana*	*Panchakolaphanta* + *Chitrakadi Vati* for digestion and detox preparation.
Day 4–9 (30 April – 5 May 2024)	*Snehapana*	*Mahatriphala* Ghruta in increasing doses from 30 ml to 150 ml.
Day 10–12 (6–8 May 2024)	*Sarvanga Abhyanga & Swedana*	External oleation and fomentation with *Dashamoola Taila*.
Day 13 (9 May 2024)	*Virechana*	*Trivruth Avaleha* + *Draksha Swarasa*. Achieved *Madhyama Shuddhi.*
Day 14–15 (10–11 May 2024)	*Samsarjana Karma*	Diet regulation post-purification therapy.
Day 16–18 (12–14 May 2024)	*Netra Parisheka & Nasya*	Herbal eye irrigation and nasal therapy for eye-head purification.
Day 19–25 (15–21 May 2024)	*Tarpana*	Eye oleation with *Panchatikta Guggulu Ghruta.*
Day 26–30 (22–26 May 2024)	*Putapaka*	Rejuvenative eye therapy.
Day 32 (28 May 2024)	*Jaloukavacharana*	Leech therapy performed for bloodletting and inflammation relief.
Day 60 (~26 June 2024)	Second treatment course	Repeated same 24-day treatment plan. Advised internal medicines, *Tarpana*, eye exercises.
Day 108 (~13 August 2024)	End of follow-up	Significant visual improvement: right eye to CF at 2.5 m, left eye improved to 6/12 (with PH). Headache relieved, joint pain controlled. Continued *Rasayana* therapy.

Follow ups and outcomes:

Follow ups are presented in table no.4,5&6.

Table no:4, Follow ups and outcomes

Sl.No	Date	Treatments
1	27/04/2024 to	*Panchakola phanta* – 20 ml –20 ml –20ml

	29/04/2024	*Chitrakadi Vati* – 2-2-2 -2 *–chushanartha*
2	30/04/2024 to 05/05/2024	*Snehapana* with *Mahatriphala Grita* (30 ml to 150 ml)
3	06/05/2024 to 08/052024	*Sarvanga abhyanga* with *Dashamulataila* followed by *Bashpa sweda*
4	09/05/2024	*Virechana* with *Trivrutavalehya* with *Draksha swarasa*
5	10/05/2024 to 11/05/2024	*Samsarjana karma*
6	12/05/2024 to 14/05/2024	*Netra parisheka* with *Triphala*,Y*yashti, Musta ,Lodra, Daruharidra* *Marsha nasya* with *Chandanasava*
7	15/05- 21/05/2024	*Tarpana* with *Pancha tiktaka guggulu ghruta*
8	22/05/-26/05/2024	*Ropana Putpaka*
9	28/05/2024	*Rakthamokshana* with *Jaloukavacharana* 1 sitting
10	Internal medicines	*Mahamanjishtadi Kwatha* 20ml –0 –20ml before food *Chandanasava* -20 ml ---0---20ml *GandhakaRasayana* –250 mg TDS after food *Arogyavardhinivati* - 250 mg TDS after food Combination of *Saptamrutalauha lauha*-250 mg *Mahatriphala ghruta* – 5 gm Honey – 10 gm *Yashada bhasma* – 200mg (mix with milk BD after food) *Chandanadi Anjana drops* 1---1---1

Table no:5, Visual acuity

Sl.No	RIGHT EYE	BT	LEFT EYE	BT
1.	DV UNAIDED	C.F-1 mt	DV UNAIDED	6/60
2	PINHOLE	6/60	PINHOLE	6/24(p)
3	BCVA	$-3.25/-0.75x60^{0}$ -6/60 with P.H 6/36	BCVA	$-0.50/-1.25x150^{0}$ 6/24
4	NEAR VISION	N/12	NEAR VISION	N/12

Table no:6, Changes in symptoms before and after treatment

Sl.No	Observation	O D		OS	
		B T	A T	B T	A T
1	Redness	Moderate	Absent	Moderate	Absent
2	Lacrimation	Mild	Absent	Mild	Absent
3	Floaters	Mild	Absent	Mild	Absent

Results

Ayurvedic treatment modalities have been employed in the management of this condition, leading to an improvement in visual acuity—6/12 in the left eye, and finger counting at 2.5 meters in the right eye, which improved to 6/36 with pinhole correction. Detailed results are shown in table number 7.

Table no:7, Results in visual acuity.

		BT	AFTER 1ST SITTING	AFTER 2ND SITTTING	FOLLOW UP
1	Right eye				
	DV	C.F-1 mt	C.F- 2 mt	C.F – 2.5 mt	C.F 2.5 mt
	PH	6/60	6/36	6/36	6/36
	A.R	$-4.50/-0.25x82^{o}$	-4.75/-0.25x270	-4.75/-0.25x270	-5.00Ds
	BCVA	$-3.25/-0.75x60^{0}$ -6/60 with P.H 6/36	-4.50 Ds 6/60 with P.H 6/36	-3.50 Ds 6/36 with P.H 6/36	-3.50 Ds 6/36 with P.H 6/36
	Near vision	N/12	N/12	N/10	N/10
2	Left eye				
	DV	6/60	6/36	6/18	6/12
	PH	6/24(p)	24(p)	6/18	6/12
	A.R	$-4.25/-0.50x94^{0}$	-3.75/-0.25x1500	-3.75/-0.25x1500	-3.25/-0.25x 860
	BCVA	$-0.50/-1.25x150^{0}$ - 6/24	-0.50/-1.25x1500 – 6/24	-2.00 Ds -6/36 with P.H 6/18	-0.75 Ds -6/18(P) with P.H 6/12
	Near vision	N/12	N/12	N/10	N/10

Discussion:

Correlation of Granulomatous uveitis with *Sashopha Akshi paka:*. The current case presents as *Sashopha Akshipaka* (~swelling and inflammation of the eyes). Whatever disturbances occur in the body can also manifest in the eyes. The primary causes of *shopha* (~swelling) include the consumption of heavy, sour, salty, alkaline, sharp, oily, and cold foods, as well as improper habits such as daytime sleep and insufficient physical strength. These factors lead to the vitiation of the main *doshas—pitta, rakta,* and *kapha*. When the digestive fire is impaired, the imbalanced pitta and *rakta* travel upward through the body channels and reaches the eyes. In the eyes, they disturb the local pitta, affecting the conjunctiva and resulting in the manifestation of symptoms associated with the disease.

It is being suggested that failure of the ocular immune system causes inflammation in Uveal tissue and causing derangement of the homeostatic conditions which causes auto-reactive T cells to proliferate and cause inflammation inside

the eyes. These cells in the eyes, release several inflammatory cytokines, which results in certain inflammatory changes in the form of vascular changes and cellular changes. Blood vessels of Uveal tissues dilate and blood ocular barrier will be damaged resulting in collection of inflammatory cells in anterior and posterior chamber. [13]

The treatment principals were adopted in such a way that the therapies and medicaments which were *shothahara* (~anti-oedamatous), *pittakaphahara* (~pitta kapha pacifiers), *chakshushya* (~eye health promotors) and *srotoshodhakara* (~body channels cleansers) were selected. The root cause of the disease lies in the formation of *amavastha* (~condition of free radicals formation), which results from the imbalance of vitiated pitta and kapha. The *Kaya shodhana* (~detoxification) eliminates the underlying free radicals from the ocular tissues along with appetizers and digesters to improve the status of *Dhatvagni* (~specific fires of body tissues) and to phagocytose the necrosed cellular components.

The *Sneha Pana* (~oral intake of medicated ghee) has lipid-based formulations infused with medicated drugs which reaches the target tissues and facilitates the removal of toxins, causing *utkleshana* (exfoliation) of the tissues. The formulation, *Pancha Tiktaka Guggulu Ghruta,* which contains bitter herbs, primarily works to address fluid imbalances in the body. Its therapeutic effects target various bodily fluids such as *Kleda* (~bodily moistures), *Medo*(~fatty tissues), Vasa(~adipose tissue), *Majja*(~essence of bone), *Laseeka* (~interstitial fluids), *Pooya*(~pus), *Sweda*(~sweat), *Mutra*(~urine), and *Pitta*, and it supports the reduction of excess fluids. The treatments like *Abhyanga* (~external oleation) and *Swedana*(~sudation), the toxins are directed towards the digestive system for elimination, either through excretion or sweating. These therapies likely support the rejuvenation of damaged retinal and macular cells, which helps restore and maintain normal vision post-treatment. *Virechana* (~medicated purgation) is a therapeutic process that helps eliminate the aggravated doshas, particularly those that are disturbed or exfoliated in the body. *Trivrut Avalehya*, which has a balancing effect on both *Pitta* and *Kapha,* is considered a gentle and effective form of medicated purgation.

Local treatments such as Netra *Parisheka* (~eye irrigation) are beneficial for addressing localized imbalances, specifically *Pitta* and *Kapha,* within the

eyes.[14] These treatments help soothe and balance the doshas in the eye region.

Nasya(~administration of therapeutic oils or herbal preparations through the nasal passages), is believed to promote the circulation of *Prana* (life energy) in the head. It helps to improve blood flow to the eyes, potentially supporting better eye health and alleviating symptoms related to various eye conditions. The cooling properties of the drugs used in *Nasya* are particularly effective in reducing Pitta dosha.

The ingredients of *Panchatikta guggulu Ghruta* is specifically beneficial for balancing Pitta and Kapha dosha and have tendency to cross the blood-ocular barrier and thereby nourish the ocular tissues Additionally, *Putapaka* (~medicated juice) is specifically effective in managing chronic eye diseases and helps in overcoming macular edema. *Jaloukavacharana* (~leech therapy) in Uveitis not only accelerates the healing process, but also avoids the recurrence and the formation of synechiae. Thus the application of leech in this case contributes to the rapid regression of signs and symptoms such as pain, redness, congestion and aqueous cells. Leech therapy is having an important role in treating *Pittaja* and *Raktaja* eye disorders by doing *Raktashodhana(*~blood purification). When leaches are applied over the sites they inject biologically active substances through saliva, Calin, Eglin have anti-inflammatory properties that helps in arresting inflammation, vasodilators like acetylcholine, histamine increases the blood flow at the affected area and during sucking of blood and hyaluronidase facilitates the penetration and diffusion of pharmacological active substances into the deeper tissue.

Mahamanjishtadi Kwatha is commonly used in the treatment of eye disorders, while *Trayodashanga Guggulu* primarily addresses immune-related eye conditions. Some ingredients in *Arogya Vardhini,* such as *Haritaki* (Terminalia chebula) and *Amalaki* (Indian gooseberry), are known for their strong antioxidant and anti-inflammatory effects, which can support overall eye health.[15] The combination of *Saptamruta lauha, Mahatriphala Ghruta*, and *Yashada Bhasma* mix with honey and milk helps protect the eye cells from oxidative stress and damage caused by free radicals. Oxidative damage is often linked to eye diseases like cataracts, macular degeneration, and diabetic retinopathy. Additionally, *Yashada Bhasma's* anti-inflammatory properties can reduce inflammation and prevent further tissue damage in the eyes.

Aspect	Conventional Approach	Ayurvedic Approach
Primary Mode of Action	Immunosuppression using corticosteroids and immunomodulators (e.g., Methotrexate, Azathioprine)	Dosha pacification, detoxification (Shodhana), and rejuvenation of ocular tissues
Short-term Relief	Corticosteroids provide rapid symptom control but are associated with recurrence upon withdrawal	Ayurvedic therapies aim for gradual improvement with long-term systemic correction
Side Effects	Long-term steroid use is associated with cataracts, glaucoma, systemic side effects; immunosuppressants cause fatigue, hepatotoxicity, etc.	Ayurvedic treatments generally have fewer side effects when used appropriately, though efficacy may be slower
Mechanism	Suppression of immune and inflammatory pathways	Restoration of balance through elimination of *Ama*, pacification of *Pitta-Kapha*, and tissue nourishment

Patient perspective :

Informed Consent: Written informed consent was obtained from the patient for the publication of this case report and any accompanying images. The patient was informed that personal details would be kept confidential and efforts would be made to ensure anonymity, although complete anonymity cannot be guaranteed.

Conclusion

Ayurvedic interventions, when combined with conventional treatment strategies, can play a significant role in managing granulomatous non-infectious posterior uveitis. Further research and controlled studies are needed to substantiate these findings and explore the potential for Ayurvedic therapies in the management of uveitis.

References:

[1] Tsirouki T, Dastiridou A, Symeonidis C, Tounakaki O, Brazitikou I, Kalogeropoulos C, Androudi S. A Focus on the Epidemiology of Uveitis. Ocul Immunol Inflamm. 2018;26(1):2-16. doi:10.1080/09273948.2016.1235228.

[2] Jakubzick C, Gautier EL, Gibbings SL, Sojka DK, Schlitzer A, Johnson TE, Ivanov S, Duan Q, Bala S, Condon T, van Rooijen N, Grainger JR, Belkaid Y, Ma'ayan A, Riches DW, Yokoyama WM, Ginhoux F, Henson PM, Randolph GJ. Minimal differentiation of classical monocytes as they survey steady-state tissues and transport antigen to lymph nodes. Immunity. 2013;39(3):599-610. doi:10.1016/j.immuni.2013.07.007.

[3] Crouser ED, White P, Caceres EG, Julian MW, Papp AC, Locke LW, Sadee W, Schlesinger LS. A Novel In Vitro Human Granuloma Model of Sarcoidosis and Latent Tuberculosis Infection. Am J Respir Cell Mol Biol. 2017;57(4):487-498. doi:10.1165/rcmb.2017-0022OC.

[4] Locke LW, Schlesinger LS, Crouser ED. Current Sarcoidosis Models and the Importance of Focusing on the Granuloma. Front Immunol. 2020;11:1719. doi:10.3389/fimmu.2020.01719.

[5] Broos CE, van Nimwegen M, Hoogsteden HC, Hendriks RW, Kool M, van den Blink B. Granuloma formation in pulmonary sarcoidosis. Front Immunol. 2013;4:437. doi:10.3389/fimmu.2013.00437.

[6] Rao NA. Pathology of Vogt-Koyanagi-Harada disease. Int Ophthalmol. 2007;27(2-3):81-85. doi:10.1007/s10792-007-9086-1.

[7] PaçKisaarslan A, Sözeri B, Şahin N, Özdemirçiçek S, Gündüz Z, Demirkaya E, Berdeli A, Sadet Özcan S, Porazoğlu H, Düşünsel R. Blau Syndrome and Early-Onset Sarcoidosis: A Six Case Series and Review of the Literature. Arch Rheumatol. 2020;35(1):117-127. doi:10.46497/ArchRheumatol.2020.7047.

[8] Rosé CD, Doyle TM, McIlvain-Simpson G, Coffman JE, Rosenbaum JT, Davey MP, Martin TM. Blau syndrome mutation of CARD15/NOD2 in sporadic early onset granulomatous arthritis. J Rheumatol. 2005;32(2):373-375. PMID:15693002.

[9] National Organization for Rare Disorders (NORD). Posterior Uveitis. Available from: https://rarediseases.org/rare-diseases/posterior-uveitis/. Accessed April 2025.

[10] Khurana AK. Comprehensive Ophthalmology. 6th ed. New Delhi: Jaypee Brothers Medical Publishers (P) Ltd.; Reprint 2015. p.150.

[11] Babu BM, Rathinam SR. Intermediate uveitis. Indian J Ophthalmol. 2010;58(1):21-27. doi:10.4103/0301-4738.58468.

[12]Sushrutasamhita, Uttaratantra, *Sarvagatarogavijnaneeyadhyaya*, 6/33. Available from: http://niimh.nic.in/ebooks/esushruta (Accessed on 15 March 2025).

[13] Myron Yanoff, MD and Jay S. Duker, MD. Ophthalmology, 4th Edition. Publication Date: 16-12-2013. ISBN: 9781455739844.

[14] Sushrutasamhita, Uttaratantra, *Kriyakalpadhyaya*, 18/44-48. Available from: http://niimh.nic.in/ebooks/esushruta (Accessed on 15 March 2025).

[15] **Govind Das. (2016).** *Bhaishajya Ratnavali* (Siddhinandan Mishra, Ed., Shvitra Chikitsa, Chapter 53, shloka 88). Varanasi: Chaukhambha Surbharati Prakashan.