



Case Study

Treatment Of Glaucomatous Optic Atrophy Through Ayurveda

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ABSTRACT

Optic atrophy is damage to optic nerve hence ultimately causing degeneration of the optic nerve. Optic atrophy, , due to the pale appearance of the optic nerve head when the aetiology is glaucoma that is the end stage manifestation of the disease that causes complete loss of vision at the end. usually only central or tunnel vision remains. This disease accounts for one of the major cause of blindness among all.so whole world is facing better treatment regarding this as it is the silent killer. Ayurveda has been serving to the humanity since very ancient times, so it can be better alternative to such disorders that are so disastrous to the vision .In Ayurveda, there is a vast description of eye diseases having their treatment in detail. But the basic thing is that it s principle rely on dosha, dhatu, samyata. that is the balance between body humour and tissues .hence the line of treatment also aims at balancing the same .and this is the reason why a and how Ayurveda aims at eliminating the disease and not just suppressing the cause . so keeping in view this point a challenging case of glaucomatous atrophy was chosen for treatment through basti with mahamasha taila and tarpana therapy with jeevantyadi ghritha that resulted in improvement of vision from hand movement to finger count in right eye and from 5/60 to 6/60 in left eye.in duration of 3 months .

INTRODUCTION:

Glaucoma is traditionally defined as a progressive optic neuropathy with accompanying characteristic optic nerve and visual field changes.¹ It is classically diagnosed by the presence of a progressive optic nerve cupping with concurrent progressive VF loss. Diagnosis is aided by the presence of risk factors such as elevated intraocular pressure (IOP), positive family history, predisposed race, advanced age and thin central corneal thickness.² Fundus findings include vertical enlargement of cup, visibility of the lamellar pores (lamellar dot sign), backward bowing of the lamina cribrosa, bayoneting and nasal shifting of the retinal vessels, and peripapillary halo and atrophy. Splinter hemorrhage at the disc margin may be observed³. Glaucoma affects over three million Americans⁴. When the drainage canals in the eye become clogged, the pressure inside the eye, rises as fluid can't drain out of the eye. Most people have no symptoms and no warning signs. If glaucoma is not diagnosed and treated, it can cause a gradual loss of vision. Glaucoma usually develops slowly and sometimes without any notable sight loss over many years.

Symptoms include changes in the optic disc and decrease in visual function. Change in visual function can include decrease in sharpness and clarity of vision (visual acuity) or decrease in side (peripheral) vision. According to Tielsch et al, the prevalence of blindness attributable to optic atrophy was 0.8%⁵. According to Munoz et al, the prevalence of visual impairment and blindness attributable to optic atrophy was 0.04% and 0.12%, respectively⁶. Optic atrophy is more prevalent in African Americans (0.3%) than in whites (0.05% No proven treatment reverses optic atrophy⁷. However, treatment that is initiated before the development of optic atrophy can be helpful in saving useful vision. The optic nerve fiber is made of axons from the retinal ganglion cells, which usually do not regenerate after injury, causes irreversible visual loss⁸. So, the

best defence is early diagnosis, because, if the cause can be found and corrected, further damage can be prevented.

In Ayurveda, disorders of eye are immensely described in shalakyta tantra, where this disease can be explained as dristigata roga as vataja timira. As in this disease, there is disturbance of vata dosha, one of the basic humor of human body, that leads to decreased vision. As per another classification of timira, it can be taken as chaturtha patal gata timira, where it is described as linganasha as complete visual loss. From Ayurvedic point of view, the reduction in blood circulation in a particular area signifies *srotavrodha* (the term *srotavrodha* means obstruction in conduit or channel) and results in *dhatu kshaya* (tissue loss) occurring due to lack of *poshana* (nutritional supply) ¹¹Optic atrophy as a whole is purely due to vata vridhi that deprive the eye of its proper nutrition that is supplied through blood supply and rich nutrients. Here in our case this atrophy is due to glaucoma where basically there is increased intraocular pressure. That ultimately damage to the optic nerve and ultimately blindness. Glaucoma acts like silent thief as it slowly steal the sight. It is a second biggest cause of blindness. Thus focusing over ayurvedic line of treatment we can treat the diseases by keeping in view the following points -

--dhatu poshaka, rasayan ,

--Vatanashaka , chakshushya, neuro regeneration ,increasing blood circulation to the eye.

--Brihana .

--Sroto shodaka

So drugs and therapies that have above properties may help in controlling the pathogenesis of disease in better ways, keeping in view of this fact we chosen a line of treatment for a patient diagnosed as glaucomatous optic atrophy bilateral eye having vision acuity HM(hand movement close to face) in RE and 5/60in LE.

Case report –

Methods and materials –place of study – NIA, Jaipur .

Presentation- A male patient having age 48 yrs complaining of gradual decrease in vision since 20 yrs has come to our OPD, he was prediagnosed as glaucomatous optic atrophy from his ophthalmologist .

History of present illness—According to the patient he was asymptomatic before 20 yrs back.

gradually he developed diminution of vision from both eyes so he consulted to the local doctors and started treatment. but he did not diagnosed properly. since 10 yrs back he was diagnosed as glaucomatous optic atrophy. so, he has started treatment for glaucoma but he could not found any improvement. lastly he was referred by his ophthalmologist for other alternative treatments so he opted for Ayurveda and came to our OPD.

Table 1: Personal History

Name:	Bala: madhyam	Prakriti: Pitta Vata
Age: 55 years	Sleep: adequate	BP:130/80 mmHg
Sex: female	Addiction: None	Weight: 64kg
Marital status: married	Bowel habit: regular	Height: 158cm
Occupation: nothing	Appetite: good	

Table 2: Ashtavidha Pariksha

<i>Nadi</i> (pulse): 80/min	<i>Shabda</i> (speech): Clear
<i>Mala</i> (stool): normal regular	<i>Sparsha</i> (touch):Normal
<i>Mutra</i> (urine) :Normal	<i>Druka</i> (eyes):Normal
<i>Jivha</i> (tongue) : normal	<i>Akruti</i> (built): Madhyam

Treatment plan –Main line of treatment is through basti of mahamasha taila(matra basti) for 11 days in three sittings .

Selected ayurvedic drug—mahamasha taila

Mahamasha thailam ingredients:

Masha (black gram) – Phasleolus Mungo – 1.536 kg

Dashamoola – group of ten herbs – together – 2.4 kg. They are –

Bilva – Aegle marmelos

Agnimantha – Premna mucronata

Shyonaka – Oroxyllum indicum

Gambhari – Gmelina arborea

Patala – Stereospermum suaveolens

Shalaparni – Desmodium gangeticum

Prinshnaparni – Urarica picta

Gokshura – Tribulus terrestris

Brihati – Solanum indicum

Kantakari – Solanum xanthocarpum

Chaga mamsa – goat meat – 1.44 kg
water – 12.288 liters

The above mixture is boiled together and reduced to 3.072 liters. Some companies boil goat meat and rest herbal mixture separately and then add both together.

This kashayam is added with

Tila taila – oil of Sesamum indicum – 768 ml
Cow milk – 3.072 liters

Paste made with 12 grams of each of fine powders of following herbs –

Atmagupta – Mucuna pruriens

Urubaka – Castor root – Ricinus communis

Shatahva – Anethum sowa

Lavana Traya – group of three salts – Rock salt, sochal salt, common salt.

Jeevaneeya group of herbs

Manjishta – Rubia cordifolia

Chavya – Piper chaba

Chitraka – Plumbago zeylanica

Katphala – Myrica nagi

Vyosha – Trikatu – Pepper, long pepper and ginger

Rasna – Pluchea lanceolata

Madhuka – Licorice – Glycyrrhiza glabra
 Saindhava – rock salt
 Devadaru – Cedrus deodara
 Amruta – Tinospora cordifolia
 Kushta – Saussurea lappa
 Vajigandha – Ashwagandha – Withania somnifera
 Vacha – Acorus calamus
 Shati – Hedychium spicatum
 All these are boiled together to prepare herbal oil.

Mahamasha thailam reference: Bhaishajya Ratnavali – Vatavyadhi Prakarana – 26/570-577
 Oral drug herbal drug formulation of kwath of chakshysha drug having punarnava shatavari , ashwagandha ,errand ,triphala, lodhra, mulethi.

Detail treatment protocol---

Deepana pachana –panchkola churna 3 g before meals .

Srotosodhana ,--triphala churna 6g night bed time with luke warm water.

Matra basti with maha masha taila 11 days .

During these days he was only on light diet like milk and porridge only .

After completion of matra basti .

Nasya –for 3 days with neelibhrinagi taila 6 drops in both nostrils .

Nelibhringadi Coconut Oil ingredients:

Neeli swarasa – Juice extract or decoction of Indigofera tinctoria – 768 ml

Bhringaraja swarasa – Juice extract or decoction of Eclipta alba – 768 ml

Shatakratulata (Karnasphota) – Cardiospermum helicacabum – decoction – 768 ml

Dhatri – Amla – Emblica officinalis – 768 ml

Aja ksheera – Goat milk – 768 ml

Nalikera Ksheera – coconut – 768 ml

Mahishiksheera – Buffalo milk – 768 ml

Dhenudbhava – Cow milk – 768 ml

Taila – Coconut oil – 768 ml

Yashti – Licorice – Glycyrrhiza glabra – 32 g

Gunjamoola – Root of Abrus precatorius – 32 g

Anjana – Aqueous extract of berberis aristata –32g

The oil prepared with coconut oil base is called – Neelibhringadi Kera thailam

Reference: Sahasra Yoga, Taila Yoga Prakarana – 38.

Tarpana with jeevantyadi ghrita –for 7 days .

Contents --Jivantyadi Ghritam Ingredients:

Jivanti – Leptadenia reticulata
 water for decoction – 12.288 liters boiled and reduced to 3.072 liters

Ksheera – cow milk

Ghrita – ghee – 768 g

12 g of each of

Prapaundarika – Nymphaea stellata

kakoli – Fritillaria roylei

Kshirakakoli – Lilium polyphyllum

Pippali – Piper longum – Long pepper

Lodhra – Symplocos racemosa

Saindhalavana – Rock salt

Shatahva – Anethum sowa

Madhuka – Glycyrrhiza glabra

Draksha – Raisins

Sita – Sugar

Daruharidra – Berberis aristata

Triphala – Haritaki (Terminalia chebula),

Vibhitaki (Terminalia bellirica) and Amalaki (Emblca officinalis)

The above combination is heated till herbal ghee is prepared.

Reference:

Ashtanga Hrudayam Uttarasthana 1/2-3

Sahasrayoga Ghrita Yoga Prakarana.

This is to repeated for three sitting as whole with a gap of 15 days .

Duration of treatment 3months.

Follow up – After 1 month.

Local examination –Visual acuity was HAND MOVEMENT (HM close to face) RE right eye and 6/60 LE left eye .No improvement with glasses. Intraocular pressure was stable and normal since 6 months as shown in the previous reports as well during the whole treatment. Slit lamp examination of the anterior segment was normal in both eyes, and dilated fundus examination shows complete pallor and disc cupping with cup disc ratio 0.9 in RE and 0.7 in LE.

Assessment criteria- Criteria based on symptomatology of *Timira*.

vihval drishti—Blurred vision not corrected by spectacles.

Objective parameter

- visual acuity
- Fundus examination by direct ophthalmoscope.

Counseling -- As patient was also psychologically upset hence proper counseling of patient was done. She was made aware about the disease and the associated fact that glaucoma is a slow progressive condition of eye that ultimately leads to optic nerve damage and hence loss of vision. Patient was made aware regarding his condition and health.

Observation were noted before treatment, after completion of treatment and at last follow up.

Results –

- vision acuity at first visit –RE –HAND MOVEMENT(close to face) , LE- 5/60
- Vision acuity after treatment –RE –FINGER COUNTING 5 FEET . LE -6/60
- At last follow up vision remains stable.

Discussion –Ayurveda proves to be better option for all the promising diseases that does not seem to be any proven and effective treatment in modern medicine now a days. Hence the whole world is facing towards our ancient science that has been proving a boon to the human science. Its basic line of treatment relies on elimination of disturbed doshas and returning of the basic dhatus to the normal state. Thus their principles treat the disease in better way and hence avoiding the recurrence of disease. Besides all these the diet regime and lifestyle modification too helps in treating disease. Here in this case by using the basic treatise of ayurvedic herbs and formulations and tarpana treatment that is the basic recommendation in all ocular disorders are strictly followed by the patient that helps in treating and controlling the diseases pathology.

Mode of Action of Tarpana: *Ghrita* is supreme in *Jangama Sneha* and is, *Ojovardhaka*, *Vayasthapana*, *Deepana* and *Dhatuposhaka Balavardhaka*. By virtue of its *Sanskaranuvartana* property, it attains the properties of ingredients without losing its own¹². *Charaka* in *Sutrasthana Snehadhyaya* quoted that, "SNEHOANILAM HANTP" which means that *Snehana* is the supreme treatment for *Vata Dosha*. According to *Charaka*, *Ghrita* is effective in subsiding *Pittaja* and *Vataja* disorders; it improves *Dhatus* and is overall booster for improving *Ojas*.

Basis of *matra basti* .. ***Vasti karma* (biopurificatory therapeutic enemata):** - *basti* is a

therapeutic procedure designed to produce biopurification especially of *Vata Dosha* (*vitiated Vata humor*) through ano-rectum. **Classically it may be of two types-**(i) *Niruha basti* or *Asthapana basti* i.e. predominantly decoction based enemata, (ii) *Anuvasana Vasti* i.e. predominantly oil based enema¹³.

Difference between Enema and basti:- Enema-purpose- simple bowel wash, *Vasti*- its own therapeutic importance, flow, pressure, temperature, viscosity, position, time more importance given in *Vasti*. Here *matra basti* is being tried as in ayurvedic texts it is a subtype of *basti* which can be given to patients during which very less complication happens and also lifestyle restrictions are minimum.¹⁴

Basti is a multidrug formulation that has wide variety of effects. It mainly removes old unhealthy microbial load, helps in developing new healthy microbial flora in gut thereby reduces pathological abnormalities producing metabolic disarrangements *Basti* also acts through enteric nervous system to improve metabolic activities. Hence on virtue of this versatile action of *Basti* therapy it can use as an alternative in preventing and managing diseases^{15,16,17}.

This clinical study highlights the effect of treatment observed as under:

- Drug is effective in arresting the progress of disease.
- It was observed that drug helps in retarding the process of disease.
- Drug is found effective in improving the visual acuity of eyes.
- Drug helps in alleviating the symptoms of *Timira*.
- During the course of therapy and after withdrawal of drug no adverse effects were observed.
- Further study is needed with the aid of modern instruments and measures to know the effect of drug action.

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