



MANAGEMENT OF MACULAR OEDEMA THROUGH AYURVEDA- A SINGLE CASE REPORT

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ABSTRACT

Objectives: Changes in macular region need special mention due to their effect on vision. These changes may be associated with various local and systemic issues such as diabetes, etc. Macular oedema happens when fluid builds up in the macula causing swelling, this distorts the vision. Thus here we are trying to rescue the vision by using Ayurvedic treatment procedures. **Methods:** In the present study, a 54 year old male patient who reported to Shalakya OPD of SJIM hospital Bengaluru with complains of blurriness of vision and history of hypertension and diabetes mellitus was taken in after assessment. The subject was treated according to the *chikitsa vidhi* prescribed under *Timira*. **Result:** there was improvement in subjective and objective parameters. **Conclusion:** In Ayurveda it has been told to treat the root cause of the disease, in this study we have tried to implement that by treating the systemic causes which lead to the macular oedema. By bringing changes in lifestyle along with medicines there was improvement in the condition.

KEYWORDS: Macular oedema, Ayurveda, *Timira*.

INTRODUCTION

Macular oedema occurs when blood vessels leak into a part of the retina called macula, which makes it swell, causing blurry vision. There are many different conditions that can lead to macular oedema. The most common one is diabetic retinopathy.^[1]

It is characterised by Visual loss which is minimal to moderate initially and sometimes it affects the colour vision also. It is mainly classified into two types based on OCT examination: - which are Non- tractional and Tractional.^[2]

In Ayurveda we can consider it as as *Timira*. Here we can see the predominance of *Kapha dosha*. *Kapha* and *Pita* vitiation plays a major role in causing oedema. *Vata dosha* is also increased due to *Dhathu kshayatva* and *Rakta vaha sroto dushti* leading to damage of retinal vessels.^[3]

A review conducted in 2012 suggested up to 7% of people with systemic issues may have macular oedema and risk factors of it are similar to diabetic retinopathy.^[4]

Treatment of macular oedema is constituted by Anti-VEGF injections, Laser photo coagulation and pars plana vitrectomy, which is expensive and having side effects. Even after undergoing these procedures 25-30% of cases

will end up with vision loss.^[5] Thus there is a need for developing an Ayurvedic treatment protocol for the same.

Here we have tried to adopt the treatment protocols which have been mentioned under the *chikitsa vidhi* of *Timira*.

METHODS

A male Subject aged 54 years visited the Shalakya Tantra OPD of Shri Jayachamarajendra Institute of Indian Medicine, Bengaluru complaining of Blurriness of vision in right eye for both distant and near objects along with floaters in right eye since 2 weeks.

Past History: History of Diabetes mellitus since 2years and HTN since 4 years.

Family History: Patient's father had a history of Retinitis pigmentosa, which could be a potential contributing factor.

History of present illness: Patient was apparently normal 2 weeks ago. He gradually developed blurriness of vision for both distant and near objects in right eye. Especially during reading news papers he observed difficulty. After 1 week he visited an Ophthalmologist, Found out that his blood sugar level was high and OCT was done. He was diagnosed with clinically

signified Macular Edema. He was advised to take Intravitreal injection. Subject wished to give Ayurveda a try, thus he approached our OPD.

Drug History: Taking medications such as amlodipine and metformin.

General Examination

- Pulse rate: 72/min
- Respiratory rate: 17/min
- Blood pressure: 140/90mmHg
- Temperature: 98.6°F

Ashta sthana pareeksha

- *Nadi:* 72/min
- *Mutra:* 5-6 times/day
- *Mala:* Prakrta
- *Jihwa:* Alpalipta
- *Shabda:* Prakrta
- *Sparsha:* Prakrta
- *Drik:* Vikrta
- *Akriti:* Madhyama

Investigations

The systemic investigations revealed an uncontrolled hypoglycaemic status with HbA1C- 11%. OCT confirmed the clinical diagnosis of Macular oedema in right Eye with Foveal Thickness of 350µm. Ocular Examinations have been explained in table no.1.respectively.

Treatment: He was treated in OPD basis. The total duration of the study was 58 days. The treatment plan is as given in table no: 2.

RESULT

With the proper intervention of Ayurvedic treatment and changes made in the lifestyle there were improvement seen in the assessment criteria as shown in the table no: 3. The systemic conditions such as diabetes was successfully made under control along with OCT showing decrease in oedema, with thickness reducing to 280 µm.

Table 1: Ocular Examination.

V/A(visual acuity)	Without Glass	PH	Without Glass
RE	3/60	5/60	N24
LE	5/60	3/60	N24
Confrontation test	Right Eye	Left Eye	Normal values in Degrees
Above	Normal	Normal	50 degree
Below	Normal	Normal	70 degree
Medial (Nasal side)	Normal	Normal	60 degree
Lateral (Temporal side)	Normal	Normal	90 degree
External Ocular Examination			
Structure	Right Eye	Left Eye	
Conjunctiva	Normal	Normal	
Cornea	Normal	Normal	
Lens	SIMC	SIMC	
Pupil	Normal	Normal	
Fundoscopy Examination			
	Right Eye	Left Eye	
Media	Hazy	Hazy	
Fundus	Hard Exudates+ Microaneurysms+ Haemorrhages+	Fundal reflex : lustreless	
Vessels	Not appreciated	Thin	
Macula	Not appreciated	dull	
Optic disc	CDR-0.4	CDR-0.3	
Amsler grid test	Wavy distorted lines	NAD	

Table 2: Treatment plan.

Sl.no:	Treatment	Days	Performed with	Other medicines given parallelly during the time
1.	<i>Deepana Pachana</i>	For 3 days	<i>Ashta churna</i>	
2.	<i>Snehapana</i>	<ul style="list-style-type: none"> • Day1- 30ml • Day 2-60ml • Day3-90ml • Day 4- 100ml • Day 5- 120 ml 	<i>Patoladi Ghrita</i>	

3.	<i>Virechana</i>	After 1 day gap	With 35gm <i>trivruth lehya</i>	
4.	<i>Seka</i>	7 days	<i>Manjishtadi kashaya</i>	<i>Shamana aushadi</i> - 1) <i>Gandharva hastadi Kashaya</i> 20ml-0-20ml (b/f) 2) <i>Saptamrita Lauha</i> -1-1-1 (a/f)
5.	<i>Nasya</i>	7days	<i>Shad bindhu taila</i>	
6.	<i>Takradhara</i>	7 days	<i>Musthamalaki kashaya</i>	
7.	<i>Shiro lepa</i>	7 days	<i>Musthadi lepa</i>	For <i>Madhumeha</i> 1) <i>Chandraprabha vati</i> 1-0-1(a/f) for 21 days. 2) <i>Nishamalaki Kashaya</i> - 20ml-0-20ml(b/f) was given during the above said period
8.	<i>Basti</i>	for 8 days	<i>Chakshushya Basti</i>	
9.	During the follow up			a) <i>Vasaguduchyadi Kashaya</i> -20-0-20ml (b/f) b) <i>Chandraprabha vati</i> -2-0-2 (a/f)

Table 3: Assesment criteria.

Sl. no.	Assessment criteria	Before Treatment	After Treatment
1.	Blurriness of Vision	Severe	Mild
2.	Headache	Severe	Absent
3.	Wavy vision	Severe	Absent
4.	Floaters	Occasional	Absent
5.	HbA1C	11%	6.9%
6.	Fundus	Hard exudates++	Hard exudates +
V/A (Visual acuity)		Without glass	
RE		6/60	
LE		6/24	
BE		6/24	

DISCUSSION

Here we have tried to treat the root cause of the disease, which is uncontrolled diabetes and hypertension, by means of bringing changes in lifestyle as well as in diet, along with medicine. Another objective of our treatment was to strengthen the thin and attenuated vessels.

Here the main *dosha* being *Kapha* and *pitha*, the treatment has been focused to clear the *sangatva* of *srotas* which is created by *Kapha dosha*. So for the *ama hara* action we have started with *deepana pachana aushadis*. Along with topical treatments such as *seka* which does *shwayathu hara* action.^[6]

Nasya was performed as it strengthens and nourishes the vessels which supply the *jatru urdwa pradesha*.^[7] Along with that internally *snehapana* followed by *Virechana* was performed to ignite the *Dhatwagni*. Parallely *shamanaushadis* were administered which acts on *madu meha* and help in controlling the diabetes. *Shiras* being the *moola sthana* of *netra*, *shiro seka* with *takra* and *lepa* was performed, as it is enriched with *marma*'s which nourishes the eye.

Vata plays a major role in *dhatu kashaya*, so to control it *chakshushya basti* was administered.

CONCLUSION

According to Ayurveda eye comes as one of the important *panchendriya* or sense organ, thus so many treatment methods and lifestyle specific for the

prevention and cure of diseases related to eyes have been mentioned in the classical books related to Ayurveda. Macular oedema being one of the important clinical condition which can hamper the vision early and timely intervention is required, which is possible through Ayurveda, thus further studies should be carried out in this field.

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