



MANAGEMENT OF DIABETIC RETINOPATHY BY AYURVEDA– A CASE REPORT

SHITAL BARAIYA^{1*} KHAYTI BHUPTA² SEJAL GAMIT³

^{1*} Assistant Professor, Department Of Shalaky Tantra, Noble Ayurved college & Research Institute, Junagadh.

² Assistant Professor, Department of Shalakyatantra, Eva college of Ayurved, Supedi

³ Assistant Professor, Department Of Shalaky Tantra, Sumandeeep Ayurved Medical college and Hospital, Vadodara

Corresponding Email id: shitalbaraiya0.sb@gmail.com Access this article online: www.jahm.co.in

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ABSTRACT:

Diabetic retinopathy (DR) is a microvascular disorder occurring due to the long-term effects of diabetes mellitus. Diabetic retinopathy may lead to vision-threatening damage to the retina, eventually leading to blindness. Diabetic retinopathy is most common and serious complication of Diabetes and changes in the retina are observed by 10 years of Diabetes history or even earlier due to modified lifestyle in present era. There are many treatment Modalities mentioned in Morden Medicine but it is symptomatic and conservative therapy. Currently available conventional treatment for DR have certain limits. In *Ayurveda* DR can be compared with *Madhumehajanya Timir*. Ayurveda, the traditional system of Indian subcontinent hold huge number of remedies that can be useful in the treatment of diabetes and associated complications like diabetic retinopathy. To revalidate the actual efficacy of these formulations and treatment modalities in DR, this case study has been carried out. Remarkable results were observed in the form of improvement in all the signs and symptoms of the disease.

Key Words: Diabetic Retinopathy, *Madhumehajanya Timir*, *Ayurveda*

INTRODUCTION:

Diabetic Retinopathy (DR), the leading cause of visual disability in diabetics, is an important complication of diabetes mellitus (DM). Conventional treatment for DR is LASER Photocoagulation, which stops the leakage of blood and fluids into the retina. but doesn't break the root pathogenesis of DR^[1]. The use of intra-vitreous pharmacotherapies in the last decade has revolutionized the management of Diabetic Macular Edema (DME) as well as Proliferative Diabetic Retinopathy (PDR)^[2]. These costly procedures improve the vision, but are to be applied at regular intervals and are not affordable by a common man. Hence, it is high time to address the management aspects of DR to develop affordable medical care. DR and other diabetic ophthalmopathies, which lead to poor vision, can be taken under the concept of *Madhumeha* leading to *Timira*^[3]. *Ayurvedic* treatment targets upon countering pathogenesis from the root level. In case of *Madhumehajanya Timira*, it aims at nourishing capillaries enabling the self-maintenance of the system^[4].

Diabetic retinopathy can be well controlled by *Ayurvedic* treatment as *Ayurvedic* herbs not only reverse the blood clots formed in the retina and vitreous but also strengthen the metabolic function so that further chances of

blood leakage can be minimized. *Ayurveda* controls the disease and increases blood circulation and nourishes retina. Use of *Ayurvedic* therapies disables the disease and possibility of being cured increases.

In this case of DR, *Ayurvedic* treatment was done along with conventional medicines.

CASE REPORT:

A male patient age of 32 year R/o Jetpur came in Shalaky Tantra OPD no.B-107, Noble Ayurved Hospital, Junagadh with following Complaints since 10 months.

- Blurring of vision in both eyes
- Black spot Infront of right eye

The general condition of the patient was good. He was known diabetic and was on oral hypoglycaemic medicines since 12 year. On his visit to the OPD, glycaemic control was poor. His appetite was moderate, and tongue was coated. According to the patient he consulted allopathic doctor for above problems. He is diagnosed was diagnosed as a case of Proliferative Diabetic Retinopathy (NPDR) with vitreous haemorrhage in right eye in September 2022. He underwent Vitrectomy in right eye and 1 sitting of PRP in left eye. He visited to the OPD enquiring *Ayurvedic* solutions for his condition. *Ayurvedic* treatment was

started on 19th December after taking his consent.

Past history: Vitrectomy was done in right eye.

One sitting of PRP was done in left eye

Examination:

Visual examination: In both eye distant visual acuity by Snellen chart was 6/60. Best corrected visual acuity in right eyes was 6/36 & in left eye 6/24. Pin hole correction without spectacles in right eye was 6/36 & in left eye 6/18. Near vision with and without spectacles was N/36 in both eyes.

Ocular examination: Eyelids, conjunctiva, sclera, cornea and anterior chamber were normal in both eyes. Pupils were of normal

size and of normal reaction. Direct Ophthalmoscopy revealed Proliferative Diabetic Retinopathy (PDR) with healed CME in right eye & traction on retina in left eye.

Systemic examination:

Pulse: 80/Min

B.P.: 124/86 mm/hg

Diagnosis:

After thorough examination, a diagnosis of *Madhumehajanya Timir* (Diabetic Retinopathy) has been established.

Table-1. Treatment plan:

Karma/ Drugs	Drug Administration	Duration
<i>Chakshushya Basti</i>	Once in morning(empty stomach)	9 days
<i>Nasya with Anu tail</i>	Once in morning	21 days
<i>Tarpan with Jivantyadi Ghrit</i>	Once in morning	21 days
<i>Saptamrit Lauha</i>	1 tablet after food in morning and evening	90 days
<i>Laghuvasant Malti Rasa</i>	2 tablets after food in morning and evening	90 days

Nasya and *Tarpan* was done in 3 sittings for 7 days with 7 days interval.

Contents of *chakshushya basti* :

(Ingredientsof *Madhutailika Basti* +*Yastimadhu Kalka*)

1. *Erandmoola Kwath*: 2 *prasrita* (190 ml)

2. *Madhu*: 1 *prasrita* (85 ml)

3. *Taila*: 1 *prasrita* (85 ml)

4. *Kalka (Shatpushpa+Yashtimadhu)*: 1/2 *prasrita* (48 gm)

5. *Saindhav*: 1/2 *Karsha* (5 gm)

Result:

There was improvement in near vision and visual acuity in both eyes. [table-2] Fundus examination revealed reduction in exudates and

haemorrhages & neovascularization in both eyes . Visual acuity was maintained during the follow-up period.

Table-2. Improvement in Vision

	Right Eye		Left Eye	
	BT	AT	BT	AT
BCVA	6/60	6/36	6/60	6/36
PH	6/36	6/18	6/24	6/18
ACVA	6/36	6/18	6/24	6/18
NV	N/36	N/12	N/36	N/12

DISCUSSION:

The line of management in *Timira* includes *Snehana, Rakta Mokshana, Virechana , Nasya, Anjana, Shiro basti, Basti, Tarpana, Lepa* and *Seka* that are to be followed repeatedly^[5] of which *Shiro-virechana, Basti & Tarpan* were followed in this case. Considering *Vata pradhana Vikriti* of the patient, *Koshta Shodhana* was done with *Erandbhrishta Haritaki. Koshta Shodhana* was used as *Pratilomahara Chikitsa*^[6].

Madhu having *Yogvahi*^[7], *Raktapittahar* and *Sandhan*^[8] properties, is absorbed a by the body very quickly. *Saindhav* due to its *Sukshma Guna* reaches up to micro channels, due to its *Tikshna Guna* break down morbid *Mala* and *Dosha Sanghat* and its *Snigdha Guna* liquefies the *Doshas*. *Acharya Charak* has mentioned about the *Chakshushya* effect of *Saindhav*^[9]. There is no drug better than *Taila* for the alleviation of *Vata*^[10]. Due to its *Vyavayi, Ushna, Guru* and *Snighda* properties *Taila* pacifies of *Vata* and increases permeability of cell membrane and helps in easy elimination of *Dosha* and *Mala*. *Kalk* and *Kwath Dravyas* are selected on the basis of *Dosha Dushya* and *Srotas*.

So their main action is of *Samprapti Vighatan* of *Roga*. According to *Acharya Charak Yashtimadhu* is a *Rasayan*^[11], best *Chakshushy*^[12] and having *Ropan* properties and has mentioned it in *Shonitstaphan Mahakashya*^[13]. Due to these properties *Yashtimadhu* helps in regeneration of the capillaries, improving the blood supply to the retina and healing the haemorrhage caused due to the rupture of the capillaries in the retina. *Shatpushpa* is having *Akshiroghat*^[14] properties and increases the retention time of *Basti*. *Erandmool Kashaya* having *Vrishya* and *Vatahar* properties help in pacifying *Vata* and regeneration of capillaries. So when *Chakshushya Basti* is given to patients of Diabetic retinopathy, its effect is seen in *Prameha* (Diabetes) as well as Diabetic retinopathy. By Pacifying the *Apana* and *Vyana Vata*. It leads to the normal function of all the Dhatus of the body and by the process of regeneration of the capillaries and improvement of the blood supply to the retina helps in curing the Diabetic retinopathy. Thus all the contents of *Chakshushya Basti* helps in the breaking the pathology of Diabetic retinopathy.

Shiro *Virechana* was done with *Anu taila* owing to its properties of *Indriya sroto pravasha*^[15] & *Shirah Sodhan*.

Jeevantydi Ghrita^[16] contains *Jeevanti*, *Ksheer*, *Ghrita*, *Prapaundarika*, *Kakoli*, *KsheerKakoli*, *Pippali*, *Lodhra*, *Saindhav*, *Shatavaha*, *Madhuka*, *Draksha*, *Sita*, *Daruharidra* and *Triphala*. *Ghrita* is poly unsaturated fat and lipid soluble hence rapidly absorbed across the tissue, easily synthesized and arrest the pathological changes of the retinal tissue and also it is one among the best *Rasayan*. *Jeevanti* is one among the best *Chakshushya* drug & most of the content of *Jeevantydi Ghrita* has *Tridosha* pacifying action. *Tarpan* procedure in posterior segment disease of eye Diabetic Retinopathy is of great importance as most of the drug permeation to intra-ocular tissues occurs through the cornea to the aqueous humour and ciliary vessels.

CONCLUSION:

Thus, it can be concluded that here after *Shirah Sodhan* by *Nasya*, Patient got effect in reduction of haemorrhage & neovascularization in retina due to effect of *Chakshushya Basti* which may regenerated the capillaries, improved the blood supply to the retina and healed the haemorrhage. Patient's vision is improved by *Tarpan* with *Jivantyadi Ghrit* due to its *Chakshushya* effect. Here patient got improvement in retina & vision by *Ayurvedic* treatment. So we can say that *Ayurvedic* management is helpful in treatment of Diabetic Retinopathy. It is also helpful for prevention of other complication of Diabetes. Considering such beneficial activities of *Ayurveda* approaches; there is a need to undertake collaborative researches to

generate evidences at larger scale in the management of Diabetic Retinopathy

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Shital Baraiya, Khayti Bhupta, Sejal Gamit. Management of Diabetic Retinopathy by Ayurveda– A case report. Jour. of Ayurveda & Holistic Medicine, Vol.-XI, Issue-VI (June 2023).

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CITE THIS ARTICLE AS

Shital Baraiya, Khayti Bhupta, Sejal Gamit. Management of Diabetic Retinopathy by Ayurveda– A case report. *J of Ayurveda and Hol Med (JAHM)*. 2023;11(6):95-101

Conflict of interest: None

Source of support: None