



ISSN 2456-3110

Vol 5 · Issue 4

July-Aug 2020

Journal of  
**Ayurveda and Integrated  
Medical Sciences**

*www.jaims.in*

**JAIMS**

An International Journal for Researches in Ayurveda and Allied Sciences



**Charaka**  
Publications

*Indexed*

# Study on analysis of *Nidana* and *Samprapti* in Diabetic Retinopathy (*Pramehaja Timira*)

Dr. Snehapriya PR<sup>1</sup>, Dr. Venkatesh BA<sup>2</sup>

<sup>1</sup>Post Graduate Scholar, <sup>2</sup>Professor, Dept. of Shalakya Tantra, Sri Kalabyraveswara Swamy Ayurvedic Medical College, Hospital and Research Centre, Bangalore, Karnataka, INDIA.

## ABSTRACT

India is set to emerge as the Diabetic capital of the world. Diabetic retinopathy (DR) occurs due to diabetic complication that effects or damages the blood vessels of light sensitive tissue of the retina. It is also observed that patients who have diabetes more than 10 years show some form of DR. Prevalence in India ranges from 17.6 - 28.2%. According to Ayurveda in *Netra Prakashika* - Shri Pujyapada Mahamuni, mentioned *Madhumeha* as a cause for *Netraroga*. DR can be termed as *Madhumehajanya Timira*. *Avarana* and *Dhatukshaya* have important role in development of DR due to prolonged and uncontrolled hyperglycemia. All the tridosha along with *Rakta Dosha* and *Saptadhatu* with four internal *Dristipatala* of eye are effected in *Pramehaja Timira* in different stages of disease. In the early stages of diabetic retinopathy there may be minimal symptoms. As condition progresses, DR symptoms may include like floaters, blurred vision and visionloss. There are two types of diabetic retinopathy: Early DR and Advanced DR. The longer period having diabetes and the less controlled blood sugar, are more likely to develop with this eye complication. Hereby an attempt is made in this article to understand the *Nidana* and *Samprapthi* which leads to *madhumehaja Timira* which can be considered as a silent killer of vision.

**Key words:** *Diabetic Retinopathy, Ayurveda, Diabetic Complication, Floaters, Madhumehajanya Timira.*

## INTRODUCTION

Diabetes mellitus one of the "Global Epidemic" with incidence rate-population of patients expected to rise to 440 millions by 2030 that to 57 million in India only. It is considered as heterogeneous syndrome with numerous symptoms and complication. Diabetic Retinopathy is an important complication of DM

that cribles the individual with extensive loss of vision.

### Diabetic retinopathy - *Premehajanya Timira*

Diabetic retinopathy is an ocular manifestation of systemic disease which affects up to 80% of all patients who had/have diabetes for 15 years or more. Manifests in 2 important forms - 1) Non Proliferative Diabetic Retinopathy (NPDR) 2) Proliferative Diabetic Retinopathy (PDR).<sup>[2]</sup> Microangiopathy in DM initiates the pathogenesis of this ophthalmic complications and key factors responsible for this complication is Occlusion of small blood vessels and Retinal Hypoxia.

*Premehajanya Timira / Prameha Netraroga* when taken into consideration there is no detailed description available regarding how *Prameha* causes *Netra Vikaras*. Acharya Pujyapada Mahamuni mentioned *Prameha* as *Nidana* of *Netra Roga*,<sup>[1]</sup> Acharya Charaka in *Sutrasthana* mentions *Prameha* is having hereditary nature.<sup>[2]</sup> Even the risk of occurrence of DR is highest in patients having the

### Address for correspondence:

Dr. Snehapriya PR

Post Graduate Scholar, Dept. Of Shalakya Tantra, Sri Kalabyraveswara Swamy Ayurvedic Medical College, Hospital and Research Centre, Bangalore, Karnataka, INDIA.

E-mail: snehapriyapramachandran@gmail.com

Submission Date: 18/07/2020 Accepted Date: 22/08/2020

### Access this article online

#### Quick Response Code



Website: [www.jaims.in](http://www.jaims.in)

Published by Maharshi Charaka Ayurveda Organization, Vijayapur, Karnataka (Regd) under the license CC-by-NC-SA

family history of DM. *Prameha Poorvaroopa* - “*Hrinnetrajihwashravanopadeha*” gives a direct clue regarding the involvement of vital organs like eyes in *Prameha Samprapthi*.<sup>[3]</sup> *Acharya Sushruta - Chikitsa of Madhumeha* gives description of *Tuvarakadi Anjana* which is said to be useful in many *Netra Roga* like *Timira*.<sup>[4]</sup> So it may be an indirect reference of *Timira* occurring due to *Madhumeha*. These are some of the references giving a clue towards involvement of eyes as a complication of *Prameha*.

Relation between *Timira* and diabetic retinopathy is that *Timira* with different *Dosha* predominance can be compared to different stages of DR. *Timira* means excessive accumulation of “*Kleda*”. DR is also characterized by excess accumulation of *Kleda* in form of exudates. Blurring of vision may be only presenting symptom of DR, *Timira* also gives same meaning.

**Nidana**

*Samanya Nidana* between *Prameha* and *Timira* - some of the *Nidana* of *Prameha* are similar with *Netra Roga Nidana*, importantly the *Prameha Nidana* have many *Achakshusya* factors. *Prameha* leads to *Timira*, reported to be a direct reference in classics first and second *Patalagata Timira* features which are predominantly seen in DR. Therefore it can be compared to *Timira* involving *Prathama* and *Dwitiya Patala*.<sup>[5]</sup>

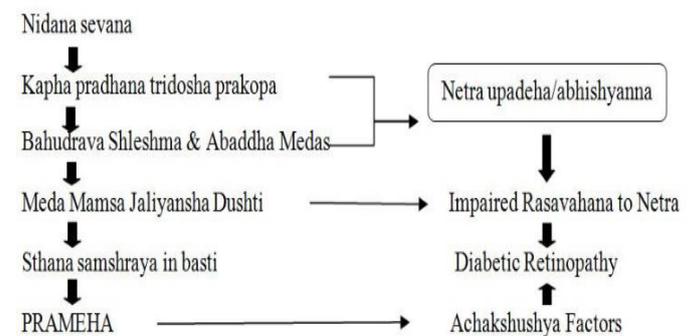
**Table 1: Comparing the Nidana of Prameha and its effect on Netra.**

Nidana	Prameha	Effect on Netra
Madhura Rasa	Taken in excess cause Prameha	Taken in excess cause Netra Roga
Amla Rasa	Kleda, Drava Vridhi, Adhya Dhatu Shaitilya.	Kaphapitta Prakopaka, Rakta Vidaha.
Shukta Aranala	Kleda - Drava Vridhi	Amla Vipaka, Kapha - Pitta Prakopaka
Masha	Guru-Snigda, Madhurarasa / Vipaka	Usna Virya
Vega Vinigraha	Mootra Vega, Apana Vayu Dusti	Nidra, Ashru Vega.

**Table 2: Comparison with symptoms of Timira and Diabetic retinopathy**

Timira	Diabetic Retinopathy
Vyavidaniva Pashyathi	Hazy, distorted vision
Jaalani Keshan Mashakan Rashmishcha Upekshithe	Spider web appearance caused due to floaters
Aditya Khadyotha Pashyathi	Flashes of light
Pashyeda Sookshmani Athyarthaha	Difficulty in seeing minute objects
Dhooma Dhoomrani Cha Ikshathte	Blackish and smoky vision
Rakthani Thamamsi Vividhani Cha Ikshate	Erythrospia

**Samprapthi**



**DISCUSSION**

Diabetic retinopathy is the most common micro vascular complication (Type I and Type II Diabetes leads to progressive loss of vision /blindness.

In Ayurveda, *Prameha* is considered as *Mahagada* and if not properly managed leads to *Upadravas*.

Certain aetiological factors of *Prameha* are *Achakshushya* which causes diabetic changes in the eye.

In *Prameha* major *Samprapthi Ghataka* is *Kleda* which contribute much to *Upadrava Rogas*,

**Kleda + Tridosha → Vikrithi in Netra Rasa Vahinis →** which is a hallmark event in developing *Pramehajanya Timira*.

Hence in Ayurveda with sound understanding of *Samprapti*, *Dosha Dhatu* involvement in different stages of DR positively hinder the progression of the pathogenesis which help in preventing blindness.

### CONCLUSION

Diabetic retinopathy is a disease of *Drishti Patala* (retina) and complication of long standing uncontrolled diabetes due to defective metabolism and endocrine dysfunction. All the *Tridoshas* and *Dhatus* are affected in successive stages and possesses all the four features of *Srotovaigunya*. Treatments like Intra vitreal anti VGF therapy and intravitreal steroid laser photocoagulation, vitrectomy etc. has limited role in clinical condition / undesired effects in majority cases which in turn causes severe and further visual impairment. If Ayurvedic treatment is started in early stages of retinopathy with controlled blood sugar, visual symptoms can be reversed; haemorrhage can be arrested and subsequently can reduce the rate of incidence of macular oedema. Diabetics have 20-25 times greater risk of blindness, so it is important to screen all for early detection and prevention of DR.

### REFERENCES

1. Pujiyapada Mahamuni, Netraprakashika, Chaturthapatala, first edition, Kendriya Ayurved and Siddha Anusandhana Parishad, New Delhi,1999 4<sup>th</sup> chapter, 8<sup>th</sup> sloka
2. Khurana AK, Khurana B, Comprehensive Ophthalmology, 6<sup>th</sup> ed. Varanasi: New Delhi: Jaypee Brothers Medical Publishers(P)Ltd:2015;p277-278
3. Brahmananda Tripathy, Caraka Samhitha of Agnivesha, Charaka Chadrika Hindi commentary, 1<sup>st</sup> edition, Chaukambha Orientalia, Varanasi p 346
4. Acharya YT, Sushruta Samhitha of Sushruta, Chikitsastana, Madhumeha Chikitsa, Chaukambha Surbharathi Prakashan, Varanasi, Reprint 2017,p456
5. Shankar U, Textbook of Shalakya Tantra Illustrated, 1<sup>st</sup> edition, Varanasi, Chaukambha Viswabharathi, 2012, Vol 1.

**How to cite this article:** Dr. Snehapriya PR, Dr. Venkatesh BA. Study on analysis of Nidana and Samprapti in Diabetic Retinopathy (Pramehaja Timira). J Ayurveda Integr Med Sci 2020;4:304-306.

**Source of Support:** Nil, **Conflict of Interest:** None declared.

\*\*\*\*\*