

## CHAKSHUSHYA BASTI IN DIABETIC RETINOPATHY- AS PREVENTIVE AND CURATIVE ASPECT- A REVIEW STUDY

Dr. Akanksha Sharma<sup>1</sup>Dr. Anjali V Makodiya<sup>2</sup>Dr. Sweety Ruparel<sup>3</sup> Dr. Krupali Raut<sup>4</sup>

<sup>1</sup>P.G.Scholar, <sup>2</sup>P.G.Scholar, <sup>3</sup>Reader and I/c H.O.D, <sup>4</sup>Lecturer,

Department of Panchkarma, Govt. AkhandanadAyurved College, Ahmedabad, Gujarat, India

### ABSTRACT

For an individual who is blind, or having visual disturbance life becomes miserable as he gets completely or partially dependent on family members for his routine work. Major cause of blindness includes cataract, uncorrected refractive errors, glaucoma, Age-Related Macular Degeneration, Corneal opacity, diabetic retinopathy. Among this Diabetic retinopathy is a leading cause of blindness in the world in the age group of 45 to 65 years. The treatment like laser photocoagulation, vitrectomy etc, have limited role in this clinical condition, on the contrary these procedures yield undesired effects in majority of cases. Due to these factors people are heading towards *Ayurveda* for better remedies. Our *Acharayas* have explained *Prameha* as *Mahagada*, but there isn't any description of eye related complications in our classics. Diabetic retinopathy is produced as a complication of diabetes, which affects the vision of the patient. The partial or complete loss of vision is explained under the heading of *Drishtigatha Vikaras* in *Shalaky Tantra*. As this disease is progressive in nature such treatment should be planned which has preventive as well as curative aspect. *Acharya Vagbhatta* has mentioned about *Chakshushya Basti*, which acts as *Rasayana*, for *Chakshu* and has *Raktapittahara* effect. As a part of *Panchkarma* treatment it can be used as a safe method for patients, lowers the risk factors, cost effective, avoid complications and stops the further progress of the disease.

**Keywords:** Diabetic retinopathy, *Drishtigata Rogas*, *Chakshushya Basti*.

### INTRODUCTION

Our *Acharyas* have mentioned “*ChakshuPradhanamSarvendriyaanaam*”<sup>1</sup> i.e, among all *Panch GyanIndriya Chakshu* has been described as a *Pradhan Indriya*. For an individual who is blind, or having visual disturbance life becomes miserable as he gets completely or partially dependent on family members for his routine work. Major cause of blindness includes cataract, uncorrected refractive errors, glaucoma, ARMD, corneal opacity, Diabetic retinopathy.

Diabetic Retinopathy<sup>2</sup>also known as di-

abetic eye disease, which occurs due to the damage caused to the retina as a result of diabetes. It can eventually lead to blindness. The prevalence of Diabetic retinopathy is 97.5% if the duration is 15years or more and 60% after 20 years of Diabetes mellitus. It is estimated that 80.45 million people in India will have diabetes by the year 2030 and the prevalence of Diabetic retinopathy will increase as well. Diabetic retinopathy often has no early warning signs.

In the first stage which is called non-

proliferative diabetic retinopathy (NPDR) there are no symptoms, the signs are not visible to the eye. The only way to detect NPDR is by fundus photography, in which microaneurysms (microscopic blood-filled bulges in the artery walls) can be seen. If there is reduced vision, fluorescein angiography can be done to see the back of the eye. Narrowing or blocked retinal blood vessels can be seen clearly and this is called retinal ischemia (lack of blood flow).

In the second stage, abnormal new blood vessels (neovascularisation) form at the back of the eye as part of proliferative diabetic retinopathy (PDR); these can burst and bleed (vitreous hemorrhage) and blur the vision, because these new blood vessels are fragile. The first time this bleeding occurs, it may not be very severe. In most cases, it will leave just a few specks of blood, or spots floating in a person's visual field, though the spots often go away after a few hours. These spots are often followed within a few days or weeks by a much greater leakage of blood, which blurs the vision. In extreme cases, a person may only be able to differentiate light from darkness.

The treatment of diabetic retinopathy in any particular case depends upon multiple factors, such as vitreous hemorrhage and complication which give rise to bad or poor prognosis. The treatment available to this condition like laser photocoagulation, vitrectomy etc, have limited role in this clinical condition, on the contrary the above treatment procedures yield undesired effects in majority of cases which in turn causes severe and further visual impairment. Due to these factors people are heading towards *Ayurveda* for better remedies. As this disease is progressive in nature such treatment should be planned

which has preventive as well as curative aspect.

#### **AIMS AND OBJECTIVES:**

1. To bring attention towards *Ayurvedic* modalities in management of Diabetic retinopathy instead of going for laser photocoagulation, vitrectomy etc.

2. To bring attention towards *Chakshushya Basti*<sup>3</sup> as a preventive as well as curative aspect.

#### **MATERIALS AND METHODS:**

A critical review of modern and *Ayurvedic* literature regarding the subject was carried out in detail. For this purpose Modern medical books, *Ayurvedic* text books, previous research work, recent research papers and research articles, PUBMED, Google scholar etc. were referred.

#### **Diabetes mellitus, Diabetic retinopathy and Ayurvedic view:**

In DM basically blood sugar level is increased either due to decreased production of the insulin by pancreas or the produced insulin is not utilized by the body. Since the cells cant intake the glucose, it builds up in the blood. As a result high level of blood glucose leads to damage of tiny blood vessels in kidneys, eyes etc. Diabetes especially if left untreated can eventually cause heart disease, stroke, blindness etc. Although the patient is on medication, due to prolonged period of diabetes, the chances of development of further complications increase.

Signs and symptoms of DM can be compared to *Prameha* in *Ayurveda*. Our *Acharyas* have explained *Prameha* as *Mahagada*<sup>4</sup>. Although there isn't any description of eye related complications caused due to *Prameha* in our classics. But Diabetic retinopathy is produced as a complication of diabetes, which occurs almost after 10 years of Diabetes, affecting the vision of the patient. In *Ayurveda* the partial or

complete loss of vision is explained under the heading of *Drishtigatha Vikaras*<sup>5</sup> in *Shalaky Tantra*.

#### TREATMENT PROTOCOL:

*Acharyas Kashyap* has given *Shatkalpa adhayaya*<sup>6</sup> in which he has mentioned 6 *Chakshushya* drugs and *Acharya Sushrut* has given *Kriyakalpa*<sup>7</sup> that can be used as a preventive aspect to enhance the visual capacity of an individual. Apart from *Shaman* treatment a lot can be done with the help of *Panchkarma* modalities especially *Basti*. But for diabetic retinopathy such treatment should be planned that it is beneficial for *Prameha* as well as *Chakshu*.

*Acharya Vagbhatta* has mentioned about *Chakshushya Basti*<sup>3</sup>, which is type of *Siddhabasti*<sup>8</sup> having all contents of *Madhutailikbasti*<sup>9</sup> along with *Yastimadhu Kalka* acts as *Rasayana*, *Pramehahar*, *Chakshushya* and has *Raktapittahara* effect.

#### CONTENTS OF CHAKSHUSHYA BASTI

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

1. *Erandmoola Kwath*: 4 *prasrita* (380ml)
2. *Madhu*: 2 *prasrita* (190 ml)
3. *Taila*: 2 *prasrita* (190 ml)
4. *Kalka (Shatpushpa+Yastimadhu)*: 1 *prasrita* (96gm)
5. *Saindhav*: 1 *karsha* (10gm)

As mentioned by *Acharya Dalhan* in his commentary *Madhutailak Basti* is a *Padahina Basti*. The total dose of this *Basti* is 9 *prasrita* (864 ml) approx. The dose of the *Basti* can be reduced also according to the *Bala* and *Satva* of the patient. Since *Chakshushya Basti* is a type of *Yapana Basti* it can be given at any time and is indicated in all seasons. The total duration of *Basti* can be planned as *Kala* or *Karama Basti*, so that desired results can be seen in the pa-

tients.

#### DISCUSSION

*Acharya Sushruta* has mentioned in *Nidanstan*<sup>10</sup> that *Prameha* is caused due to vitiation of *Apana* and *Vyana Vayu*. *Vayu* is responsible for all the functions and the production of diseases. *Basti*<sup>11</sup> is best line of treatment to control the *Prakupit Vata* and thus it controls the diseases caused by *Vata*. *Acharya Prashar* says *Guda*<sup>12</sup> is the *Moola* of the body, where all *Siras* are located. The given *Basti* when enters *Pakwashya*<sup>13</sup> by its *Virya*, draws the morbid *Doshas* logged in the entire body from foot to head. *Basti* has its effect on 2 important factors<sup>14</sup> *Vata* and *Agni*. Both are responsible for the formation and nutrition of *Dhatu*. *Vata* is said to be the regulator of *Dhatu*. So by controlling *Vata* all *Dhatu*s are able to perform their normal function. *Chakshushya Basti*(*Madhutailika Basti* with *Yastimadhu Kalka*) is a type of *Siddha Basti*. It can be given in any season without any complication. It improves strength of the body. It is effective in producing the definitive therapeutic results.

#### PROBABLE MODE OF ACTION OF CHAKSHUSHYA BASTI

*Madhu* having *Yogvahi*<sup>15</sup>, *Raktapittahar*<sup>16</sup> and *sandhan*<sup>16</sup> properties, is absorbed and assimilated 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*<sup>17</sup> effect of *Saindhav*. There is no drug better than *Taila*<sup>18</sup> for the alleviation of *Vata*. 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*. *Kalka* and *Kwath Dravya* serve the func-

tion of *Utkleshan*<sup>19</sup> or *Dosha Haran* or *Shaman*. These 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*<sup>20</sup>, best *Chakshushya*<sup>11</sup> and *Ropan*<sup>11</sup> properties and has mentioned it in *Shonitstaphan Mahakashya*<sup>22</sup>. Due to these properties *Yashtimadhu* helps in regeneration of the capillaries, improving the blood supply to the retina and healing the hemorrhage caused due to the rupture of the capillaries in the retina. *Shatpushpa* is having *Akshiroghat*<sup>23</sup> properties and increases the retention time of *Basti*. *Erandmool Kashaya*<sup>11</sup> 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 *VyanaVata* 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

### CONCLUSION

Diabetic retinopathy is produced as a complication of diabetes. So a person having diabetes for prolonged duration is more prone to develop Diabetic retinopathy. As a part of *Panchkarma* treatment *Chakshushya Basti* can be used for curative as well as preventive measure. Newly diagnosed patients or patients having diabetes from 2 or 3 years in such patients *Chakshushya Basti* when given acts as a preventive measure and the further complication of the diabetes can be avoided.

In patients with Diabetic retinopathy it acts

as curative measure by the process of regeneration of the capillaries and improvement of the blood supply to the retina and healing the hemorrhage leading to improvement in vision. Thus *Chakshushya Basti* can be used for curative as well as preventive measure in Diabetic Retinopathy as it acts as a *Rasayana* and has *Pramehahar*, *Chakshushya* and has *Raktapittahara* effect. It can be considered as a safe method for patients, lowers the risk factors, cost effective, avoid further progress and complications of the disease.

### REFERENCES

1. Agnivesh , Charak Samhita, Vidyotini Hindi Commentary by P. Kashinath Pandey and Dr. Gorakhnath Chaturvedi Varansi:Chaukhambha Sanskrit Bhavan; Reprint 2008, volume -1, Sutrasthana p.176
2. <http://en.m.wikipedia.org/wiki/Diabetic-retinopathy> 31-8-2016(2.30pm)
3. Vagbhata, Ashtangahridayam Vidyotini Hindi Commentary by KavirajAtridev gupta Edited by Vaidya Yadunandan Upadhyaya Varansi:Chaukhambha Sanskrit Bhavan; Reprint 2008, Kalpasthan 4/27-28, p. 600
4. Sushrut, Sushrut Samhita, Ayurved Tattva Sandipika Hindi commentary, by Ambika Dutta Shastri: Chaukhamba Sanskrit Sansthan Varanasi; Reprint 2009,Sutrasthana 33/4, p.163.
5. Sushrut, Sushrut Samhita, Ayurved Tattva Sandipika Hindi commentary, by Ambika Dutta Shastri: Chaukhamba Sanskrit Sansthan Varanasi; Reprint 2009, uttatantra 12/1, p.40
6. Kashyap, Kashyap Samhita, Vidyotini Hindi Commentary, by Sri Satyapala Bhisagacharya:Chaukhamba Sanskrit Sansthan Varanasi; Reprint 2012, Kalpasthan 3/10, p.183.
7. Sushrut, Sushrut Samhita, Ayurved Tattva Sandipika Hindi commentary, by Ambika Dutta Shastri: Chaukhamba Sanskrit Sansthan Varanasi; Reprint

- 2009, uttartastra 18/1, p.93
8. Vagbhata, Ashtangahrdayam Vidyotini Hindi Commentary by Kaviraj Atridev gupta Edited by Vaidya Yadunandan Upadhyaya Varansi:Chaukhambha Sanskrit Bhavan; Reprint 2008, Kalpasthan 4/26, p. 600
  9. Vagbhata, Ashtangahrdayam Vidyotini Hindi Commentary by Kaviraj Atridev gupta Edited by Vaidya Yadunandan Upadhyaya Varansi:Chaukhambha Sanskrit Bhavan; Reprint 2008, Kalpasthan 4/27-28, p. 600
  10. Sushrut, Sushrut Samhita, Ayurved Tattva Sandipika Hindi commentary, by Ambika Dutta Shastri: Chaukhamba Sanskrit Sansthan Varanasi; Reprint 2009, Nidansthana 1/20, p.298.
  11. Agnivesh , Charak Samhita, Vidyotini Hindi Commentary by P. Kashinath Pandey and Dr. Gorakhnath Chaturvedi Varansi:Chaukhambha Sanskrit Bhavan; Reprint 2008, volume -1, Sutras-thana 25/40 p.468.
  12. Dr, Vasant Patil, Principles and Practice of Panchakarma, Chaukhambha Publication,New Delhi, Reprint , 2014, p.494
  13. Agnivesh , Charak Samhita, Vidyotini Hindi Commentary by P. Kashinath Pandey and Dr. Gorakhnath Chaturvedi Varansi:Chaukhambha Sanskrit Bhavan; Reprint 2008, volume -1, Siddhis-thana 7/64 p.468.
  14. Dr, Vasant Patil, Principles and Practice of Panchakarma, Chaukhambha Publication,New Delhi, Reprint , 2014, p.496
  15. Agnivesh , Charak Samhita, Vidyotini Hindi Commentary by P. Kashinath Pandey and Dr. Gorakhnath Chaturvedi Varansi:Chaukhambha Sanskrit Bhavan; Reprint 2008, volume -1, Sutras-thana 27/249 p.555.
  16. Agnivesh , Charak Samhita, Vidyotini Hindi Commentary by P. Kashinath Pandey and Dr. Gorakhnath Chaturvedi Varansi:Chaukhambha Sanskrit Bhavan; Reprint 2008, volume -1, Sutras-thana 27/245p. 554.
  17. Agnivesh , Charak Samhita, Vidyotini Hindi Commentary by P. Kashinath Pandey and Dr. Gorakhnath Chaturvedi Varansi:Chaukhambha Sanskrit Bhavan; Reprint 2008, volume -1, Sutras-thana 27/300 p. 561
  18. Agnivesh , Charak Samhita, Vidyotini Hindi Commentary by P. Kashinath Pandey and Dr. Gorakhnath Chaturvedi Varansi:Chaukhambha Sanskrit Bhavan; Reprint 2008, volume -1, Sutras-thana 27/288 p. 559
  19. Dr, Vasant Patil, Principles and Practice of Panchakarma, Chaukhambha Publication,New Delhi, Reprint , 2014, p.498
  20. Agnivesh , Charak Samhita, Vidyotini Hindi Commentary by P. Kashinath Pandey and Dr. Gorakhnath Chaturvedi Varansi:Chaukhambha Sanskrit Bhavan; Reprint 2008, volume -1, Chikitsasthana 1-3/30 p. 39
  21. Agnivesh , Charak Samhita, Vidyotini Hindi Commentary by P. Kashinath Pandey and Dr. Gorakhnath Chaturvedi Varansi:Chaukhambha Sanskrit Bhavan; Reprint 2008, volume -1, Sutras-thana 4/46 p.95.
  22. Bhavaprakasha Nighantu, by K C Chunekar,Chaukhambha Bharti Academy; Reprint 2009. Haritikiyadi varga 1/92,p.35.
  23. Agnivesh , Charak Samhita, Vidyotini Hindi Commentary by P. Kashinath Pandey and Dr. Gorakhnath Chaturvedi Varansi:Chaukhambha Sanskrit Bhavan; Reprint 2008, volume -1, Sutras-thana 25/40 p.468.

#### CORRESPONDING AUTHOR

**Dr. Akanksha Sharma**

P.G.Scholar

Department of Panchkarma, Govt. Akhandanad Ayurved College, Ahmedabad, Gujarat, India

**Email:** sharma.akanksha1085@gmail.com

**Source of Support:** Nil

**Conflict of Interest:** None Declared