Diabetes & Eye: Dual Challenge Dealt with Homoeopathy

Dr. Tridibesh Tripathy
BHMS (Utkal University, Bhubaneswar), MD (BFUHS, Faridkot), MHA (TISS, Mumbai), Ph.D. in Health Systems Studies (TISS, Mumbai), Homoeopathic & Public Health Expert, Visiting Professor, Master of Public Health (Community Medicine) program, Department of Social Work, Lucknow University, Lucknow, UP, India

Dr. Deepak Kumar
MS (Ophthalmology), Eye Specialist, Saint Mary’s Hospital, Karauta, Lohta, Varanasi, Uttar Pradesh, India

Dr. Sujit Deshmukh
MS (Ophthalmology), Eye Specialist, Specialization in Glaucoma, Saint Mary’s Hospital, Karauta, Lohta, Varanasi, Uttar Pradesh, India

Prof. Shankar Das
Dean, School of Health Systems Studies, Tata Institute of Social Sciences, Mumbai & Former Director, IIHMR, Delhi, India

Prof. Dharmendra Pratap Singh
Dean, Centre of Research Methodology, Tata Institute of Social Sciences, Mumbai, India

Dr. Umakant Prusty
Research officer (Homoeopathy), Regional Research Institute (Homoeopathy), Puri, Odisha under Central Council for Research in Homoeopathy, Ministry of AYUSH, Government of India

Dr. Jeevan Krushna Pattanaik
Medical Officer (Homoeopathy), Attached to Dr. Abhin Chandra Homoeopathic Medical College & Hospital, Bhubaneswar, Government of Odisha, India

Dr. Pramod Bihary Pradhan
Nodal Officer (Homoeopathy), Directorate of AYUSH, Government of Odisha, Bhubaneswar, India

Mr. Anil Dubey
Master in Social Work, Co-ordinator, programs in the institution & outreach wing of institution, Saint Mary’s Hospital, Varanasi, Uttar Pradesh, India

Mr. Anjani Kumar
Master in Social Work, Divisional Project Co-ordinator, National Nutrition Mission, Varanasi Division, Uttar Pradesh, India

Prof. Rakesh Dwivedi
Co-ordinator, Master of Public Health (Community Medicine) program, Department of Social Work, Lucknow University, Lucknow, India

Dr. Mohini Gautam
Assistant Professor, Faculty, Master of Public Health (Community Medicine) program, Department of Social Work, Lucknow University, Lucknow, India

Abstract
When a person’s blood sugar levels elevate beyond normal ranges, the body undergoes a condition known as hyperglycemia or diabetes that can harm several organs of the body. The elevated glucose level can lead to insulin resistance. As a result of surging of blood glucose levels, the Protein Kinase C (PKC) is activated thereby expediting polyol pathway. These inflammatory mechanisms ultimately harm the body as a whole there by affecting organs.
like eyes, nerves & blood vessels. The article looks into the inflammatory processes while describing the altered physiology & the ensuing pathology inside the body. The current article looks into the current situation of this issue in India. Thereafter the article discusses the diagnosis, prevention & management of this condition. Following that, it explores what homoeopathy can offer to deal with these cases. Suggestive treatment protocol, dietary regimen strategies are discussed as way forward for tackling this challenge.

Introduction
The damage done by hyperglycemia may vary as per the manifestations in different individuals but the root cause of this damage is the activation of PKC & the activation of polyl pathway. In hyperglycemia, many actions are triggered & one of the action involves a pathway known as Diacylglycerol (DAG) way. This pathway initiates the activity of the molecule PKC. This patho-physiology happens inside the body & that’s why these terms are not popular clinically. [1,2,3,4,22] Reducing inflammation is critical because these internal inflammations in the form of high Lactic acid De-Hydrogenase (LDH), Cumulative Reactive Protein (CRP), D-Dimer, blood glucose, uric acid levels & Homocysteine levels were fatal during the COVID 19 pandemic. In the same vein, the current article sees the hyperglycemia as an inflammatory condition that affects the eye & there by the vision slowly & steadily. [16,20]

The article looks at the role of homoeopathy in dealing with the vision disorders. It brings out the fact that homoeopathy can deal with not only treating these vision related issues but also prevent these diseases & promote health. The properties of homoeopathic medicines that are aligned to the essential medicines are also discussed. Finally, it mentions that these vision disorders can only be dealt only if Universal Health Coverage (UHC) is achievable. Achievability of UHC is only possible if the AYUSH systems are integrated into the mainstream & homoeopathy is an active component of this package. [16,20]

Patho-Physiology of PKC
The molecule PKC initiates a process called angiogenesis in which new vessels are formed. In the beginning, it seems like a positive development but when it reoccurs excessively, it leads to problems. It results in overgrowth of new vessels in the most sensitive part of the eye, the retina [1,2,3,4,22]. This process affects our eye sight & the condition is known as retinopathy. Hence, excess glucose leads to a series of changes that ultimately affects the eyes. This process also triggers the production & activation of a protein called Tumor Growth Factor- beta (TGF-beta)

The next development is tissue stiffness. Further, these changes affect the skin thereby altering the patient’s appearance that includes retinal problems, tissue stiffness & changes in skin appearance. [1,2,3,4,22] The process spreads further & the polyl pathway accelerates in specific tissues like the kidney, retina & blood vessels. The process also changes glucose into a substance called Sorbitol with the help of an enzyme called Aldose Reductase. Thereafter Sorbitol turns into Fructose & other by products. Too much glucose acts like a magnet for water that is osmotically active & thus pulls it towards the eyes, especially the retina. This process distorts the lens & cause damage to the eyes. In this way, cataract & other issues like excess fluid in the eyes occur further hindering the eye sight. [1,2,3,4,22]

About Reactive Oxygen Species (ROS)
The polyl pathway causes cells to consume more antioxidants. Anti Oxidants are those that protect cells from bad stuff called Reactive Oxygen Species (ROS) & other harmful molecules. When cells run low on antioxidants, ROS levels rise thus damaging further. This process causes problems like nerves, feet & the body’s ability to control bladder & bowels. [1,2,3,4,22]

Not only this, the process also damages the eyes causing retinopathy & cataracts. ROS species also lead to issues like low blood pressure, stiff blood vessels & conditions like aortic dissection. [1,2,3,4,22]

Epidemiology of vision disorders
As per a study published in 2021, the prevalence of Diabetic Retinopathy (DR) among persons with diabetes was 16.9%, the prevalence of Sight Threatening Diabetic Retinopathy (STDR) was 3.6% & the prevalence of Mild Retinopathy (MR) was 11.8%. [23]

The Lancet study published in 2022 states that the overall weighted prevalence in India considering both known diabetes & undiagnosed diabetes was 12.5% for DR. It was 45 for Vision Threatening Diabetic Retinopathy (VTDR) with no significant differences between urban & rural residence for DR. Hyperglycemia was the strongest modifiable risk factor. Further, it mentions that 3 million are at risk or already have vision loss due to VTDR in India. [24]

As per the NFHS 5 report in 2019-21 for India, among diabetics, the percentages of males are more than the females. [15]

Homoeopathic Approach
In 1870, 27 years after the death of the father of Homoeopathy, Dr. Eduard Von Grauvogl classified human constitution into 3 different types. Like Dr.
Samuel Hahnemann (1755-1843), Dr. Grauvogl was also a German Homoeopath. He classified humans into three types of constitutions. [12,21]

The first is ‘Hydrogenoid’ constitution which means these humans have a tendency to accumulate of water in their system or are affected by excess water in the environment. This is alike to the ‘Kapha’ dosha (humur) of Ayurveda. This is the ‘Sycotic’ miasm as per Dr. Hahnemann. [12,21,25]

The second is ‘Carbo Nitro Genoid’ which means they have a tendency to be affected by excess carbon & nitrogen from the environment as their system has predominantly carbon & nitrogen. This is alike ‘Psoric’ miasm of Dr. Hahnemann. This is similar to the ‘Vata’ dosha of Ayurveda. [12,21,25]

The third is ‘Oxygenoid’ which means they have predominantly oxygen in their system. This is alike the ‘Syphilitic’ miasm of Dr. Hahnemann & the ‘Pita’ dosha of Ayurveda. [12,21,25]

The third type is similar to the ROS mentioned above. As in Oxygenoid, the raw oxygen destroys the body, the ROS phenomenon also destroys the body through free oxygen radicals or oxidants. This phenomenon is similar to the ‘Syphilitic’ miasm of homeopathy which is at the background of all the destructive processes in the body. It is similar to the pita dosha of Ayurveda. [12,21,25]

**Treatment Protocol**

There are three dimensions of approaching the hyperglycemia induced destructive process induced vision related disorders.

The first dimension is to address hyperglycemia. The second is to address to reduce the ROA or the tendency of the Oxygenoid body to destroy itself. The third dimension is to address the eye as an organ & especially the retina.

There are two types of diabetes, one is diabetes mellitus & the other is diabetes insipidus. Here, both the types are discussed. [2]

The lead author has picked up the drugs that are mentioned in capital letters under diabetes in Phatak’s repertory. These are the drugs that act in high sugar levels thereby preventing vision disorders & retinopathy. This retinopathy leads to vision loss. The drugs are Bovista, Helonias, Phosphorus, Phosphoric Acid, Tarentula, Terebinth & Uranium Nitricum. [7]

For diabetes insipidus, drugs like ‘Aabroma Augusta’ & ‘Acid Phos’ in mother tinctures can be prescribed. [9]

Besides the potency medicines, the mother tinctures of Indian drugs can also be prescribed. Retinopathy is the leading cause of vision loss here & because of retinopathy, the nervous layer of the eye gets weakened & vision loss occurs. Hence, the medicines that cover both diabetes & neurasthenia are to be prescribed. Under neurasthenia, the drugs in capital letters are Sepia & Sulphur. [9]

Besides, the specific drugs for diabetes like Arsenic Bromide, Alloxan, Phaseolus & Phlorizin can also be prescribed. [5]

For prevention of uncontrolled sugar levels & retinopathy, miasmatic prescribing should be done based on the predominant miasms in the patient. [12]

It is also equally critical to keep the Bach flower remedy known as ‘Rescue Remedy’ as these patients can be saved from heart attacks as well. [14]

Another preventive & curative medicine is the Bowel Nosode ‘Dysentery Compound’ which is also a heart Nosode. [11]

On the top of it, anti-inflammatory drugs like ‘Curcumin’, ‘Prednisone’, ‘Cortisone’ & ‘Colchicine’ should be prescribed to deal with ROS phenomenon. [5,6]

**Way Forward**

The approach of diet, exercise & a healthy mental state is extremely essential for any individual to protect himself or herself from the long term negative effects of hyperglycemia. [2,3,18]

Precaution is the key. The latent dangers of diabetes related retinopathy, the monitoring of blood sugar levels at regular intervals while staying vigilant & aware of potential vision related symptoms. [1,2,3]

Adhering to a healthy & balanced diet, regular physical activity helps improve blood sugar control there by strengthening eye & promoting ocular health. [1,2,3,18]

Regular adherence to prescribed medications while managing stress is critical as stress can affect blood sugar levels thus contributing to vision complications. The masking of gradual vision loss symptoms challenges early detection & timely intervention. Each diabetic must prioritize ocular health by maintaining optimal blood sugar control. They should be staying aware of alternative symptoms while seeking prompt medical attention when necessary. [1,2,3,18]

The issue of vision loss due to hyperglycemia should be done at large scale & this can be achieved through Universal Health Coverage (UHC) while integrating the AYUSH system & among all the therapeutic system, it is homeopathy which can cover masses at low cost. This has been corroborated by authors in an article published in the Lancet. [16]

**Conclusion**

All drugs in homeopathy have the mental & physical dimensions. Homoeopathy is and will be effective against these eye/vision disorders in general as all drugs cover both the dimensions. The current article adds another feather in the Homoeopathic cap as it can deal with the probable upcoming of large number of cases of these vision disorders in view of high internal inflammation levels in the body.

This is due to the long term consequences of the ongoing COVID 19 crisis that is still prevalent in the form
of long COVID. However, it should be also seen that along with constitutional/deep acting/polychrest Homoeopathic medicines, specific medicines are also required to deal with the cases. Simultaneously, nutrition, counseling and all psychic health modalities like life style modification, diet and stress reduction are adhered to in each case. [5 to14, 20]

In fact, the detailed case taking of a case or anamnesis & empathetic hearing are the elements of supportive therapy as such inflammatory cases are stubborn and resistant. The Homoeopathic approach of case-taking/anamnesis exactly fits into the criteria of supportive therapy. Hence, as a part of treatment, the supportive therapy is inherent in the Homoeopathic system of treatment. [12]

The Homoeopathic fraternity should be ready to cover the masses as there is no other therapeutic system that can cover the masses effectively while being economical, no side effects and to add to it, it is cost effective. Simultaneously, it has a wide range of medicines for these chronic vision disorders as seen in the contents of the sections mentioned above. [4, 25]

The pro homoeopathic group should address the 130 million populations that use homoeopathy in India currently & these groups can be saved from vision issues. [17]

Acknowledgement

The lead author thanks Dr. Umakant, Dr. Pramod, Dr. Madan and Dr. Jeevan for their inputs in the Homoeopathic section and all the other co-authors for their inputs in the Non-Homoeopathic section. The lead author especially thanks Dr. Deepak & Dr. Sujit, the two ophthalmologists for their inputs in the article.

Declaration of the lead author

Prof. Shankar Das, a co-author of the current article was the Ph.D. guide of the lead author at Tata Institute of Social Sciences, Mumbai. Professor D.P. Singh, another co-author of the article was the teacher of the lead author at Tata Institute of Social Sciences, Mumbai during 1995-1997. The lead author also certifies that he has expressed his personal opinion based upon his public health and clinical experiences. The treatment approach or the medicines suggested are only suggestive in nature.

Financial support and sponsorship

Nil

Conflicts of interest

Nil

References