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# A CONCEPTUAL STUDY ON ADHIMANTHA (GLAUCOMA) - BRIDGING AYURVEDIC AND MODERN PERSPECTIVES

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## ABSTRACT

*Adhimantha*, a term used in Ayurveda, is conceptually analogous to Glaucoma, a progressive optic neuropathy that can lead to irreversible blindness. This study aims to bridge the gap between traditional ayurvedic understanding and modern medical perspectives on glaucoma. By exploring the Ayurvedic concept of *Adhimantha*, the study highlights the pathophysiology, symptomatology, and management strategies from both traditional and contemporary viewpoints. Ayurvedic texts describe *Adhimantha* as a condition characterized by pain, visual disturbances, and progressive vision loss, which aligns closely with the clinical manifestations of glaucoma. Through this conceptual study, we seek to elucidate the diagnostic criteria and therapeutic approaches employed in Ayurveda, emphasizing herbal remedies. The current wave of glaucoma treatment includes carbonic anhydrase inhibitors, miotic therapy, and hypotensive medication. *Deepana-pachana, Gokshuradi gugglu, Sweta parpati*, and other Ayurvedic treatments are included.

KEYWORDS: Adhimantha, optic disc, carbonic anhydrase, Gokshuradi gugglu.

## INTRODUCTION

Ayurveda, the science of life, forms the bedrock of Indian medical knowledge. Historically, Ayurveda laid the foundation for the art of healing, encompassing not only the treatment of diseases but also various aspects of life. *Sushruta* identifies *Shalakya Tantra* as the second discipline in Ayurveda, focusing on diagnosis and therapy. *Adhimantha*, comparable to glaucoma, has been associated with the neglect or improper treatment of *Abhishyanda*. This condition, characterized by symptoms akin to glaucoma, is not a singular disease but a collection of pathological disorders with dominant clinical manifestations.

### Adhimantha in Samhitas

Adhimantha is of 4 basic types: Vata, Pitta, Kapha and Rakta

Involved Dosha and Dhatus include - Alochaka Pitta, Tarpak Kapha, Rasa, Rakta, Mamsa, along with Prana Vayu. In general, Vata controls the operation of the retinal nerve, while Pitta acts to drain the aqueous humour and Kapha nourishes the eye. In Adhimantha, there is sukshma srotodusti (sanga), which leads to *Atipravritti* at the level of the optic nerve and the outflow of aqueous humour. *Vastanari* function finally deteriorates, resulting in atrophy of the optic nerve. In contemporary ophthalmology, it is challenging to associate Adhimantha with a specific condition, although we can associate it with glaucoma.

#### What is Glaucoma?

Glaucoma is a symptomatic condition where the functional integrity of the eye is disturbed resulting in characteristic irreversible loss of visual field due to persistent raised IOP.

#### Lower the I.O.P, Slower the Glaucoma Progression

1. Risk of developing glaucoma with IOP>21mmHg is 16 times higher than with

an IOP>16mmHg.

2. Asymmetric IOP in an individual pair of eyes is related to the Optic Nerve (ON).

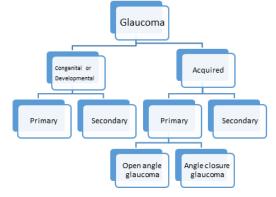
Reducing the IOP lowers the risk of ON changes.

3. For every 1mm Hg rise in IOP, the risk of developing open-angle glaucoma increases by 10%.

#### **Risk Factors**

- Hyperopia
- Family history
- Old age
- Female gender
- Age-related cataract

#### Types of Glaucoma



**Methods to Diagnose Glaucoma:** Glaucoma (POAG) is termed as, 'a sneak thief of sight' and 'silent killer of sight'. Since this usually does not produce any symptoms in the early stage (while ACG may produce).

Diagnostic measures of glaucoma are:

- 1. Tonometry
- 2. Ophthalmoscopy
- 3. Perimetry
- 4. Gonioscopy
- 5. Optical coherence tomography (OCT)

#### The 6 Parameters to Look for Glaucomatous ONH

- Generalised/focal cup enlargement
- Disc haemorrhage
- Neuroretinal rim thinning
- Asymmetric cupping
- Nerve fibre layer loss
- Parapapillary atrophy Progressive

# **Modern Management of Glaucoma:** The medications now available, fall into 6 classes<sup>[6]</sup>

- Beta-blockers
- Prostaglandin analogues
- Alpha agonists
- Carbonic anhydrase inhibitors
- Miotics

#### Ayurvedic Management of Glaucoma

The general line of treatment includes Agni karma, Raktamokshana, Tarpana etc.

Treatment protocol: Oral medications which can be helpful to treat glaucoma include-

1. Deepana-pachana with Eranda bhrishta Haritaki to remove Ama dosha

- 2. Punarnavashtaka kwath
- 3. Gokshuradi gugglu
- 4. Shweta parpati

These drugs are having Neuro-protective, *Rasayana*, *Shothahara* and Diuretic effects which helps to reduce I.O.P.

5. *Tarpana* and *Aschyotana* with *Shigru Pallava Arka* locally. It acts as a good *Srotoshodhaka*, so all vitiated *doshas* can be subsided and drained out.

Keeping this concept in mind a humble attempt is planned for the management of glaucoma by using a classical way of Neuroprotective and *Shothahara* effects. Therefore, Ayurvedic management can be applied to treat glaucoma, as it is effective and has minimum hazards.

#### CONCLUSION

Glaucomatous optic neuropathy is a slowly progressing condition that can lead to irreversible blindness if not treated. Modern management strategies for glaucoma primarily focus on reducing intraocular pressure (IOP). However, effective glaucoma management should include medications that enhance optic nerve blood flow and possess nerve-regenerative and antioxidant properties. Ayurveda introduces the concept of *Rasayana*, offering numerous potential treatments for degenerative disorders. These Ayurvedic formulations require evidence-based validation through rigorous research protocols to gain global acceptance and usage.

#### REFERENCES

- 1. Shashtri Ambika Data. (2006) Sushrut Samhita, Uttarsthan, Adhyay-6, Chaukhamba Sanskrit Sansthan, Varanasi, p.27.
- 2. http://www.who.int/bulletin/volumes/82/11/featur e1104/en/
- 3. Khurana, A.K. (2007). *Comprehensive Ophthalmology*, edition 4th, p.208.
- 4. Khurana, A.K. (2007). *Comprehensive Ophthalmology*, edition 4th, p.210.
- 5. Khurana, A.K. (2007). *Comprehensive Ophthalmology*, edition 4th, p.220.
- 6. Khurana, A.K. (2007). *Comprehensive Ophthalmology*, edition 4th, p.222.
- Sharma, P.V. (1996). Classical uses of medicinal plants, edition 1st, Varanasi, Chaukhamba Viswabharati.
- 8. Shastri Rajeshwar Dutt. (1999) *Bhaishajya Ratnavali Udararogachikitsa*, 40/33, Chaukhambha Sanskrit Sansthan, Varanasi, edition 13th, p.532.
- 9. Tripathi Bramhananda (2008), *Sharangdhara Samhita*, Madhyam Khanda 7/84-87.
- 10. Siddha Yoga Sangraha (2000), Ashmari mutrakricha adhikara, AFI VOL-2, 12: 2.
- Samar k Basak Essentials of Opthalmology, edition 8<sup>th</sup>, p.290 & 291.
- 12. Kansiki Clinical Ophthalmology, A Systemic Approach, 9<sup>th</sup> edition, p.349.
- Samar k Basak Essentials of Opthalmology, edition 8<sup>th</sup>, p.292-293.
- 14. Kansiki clinical Opthalmology, A Systemic Approach, 9<sup>th</sup> edition, p.346.