



Indian Journal of Agriculture and Allied Sciences

A Refereed Research Journal

ISSN 2395-1109

e-ISSN 2455-9709

Volume: 3, No.: 2, Year: 2017

www.mrfsw.org

Received: 20.05.2017, Accepted: 24.06.2017

PITTA VIDAGDHA DRISHTI (AGE RELATED MACULAR DEGENERATION)–A CONCEPTUAL STUDY

Arun Kumar¹, Abha Singh² and Rajendra Kumar Soni³

¹Consultant Shalakyta Tantra Main Campus Uttarakhand Ayurved University, E-mail: abhadoc83@gmail.com ²Consultant Shalakyta Tantra Main Campus Uttarakhand Ayurved University and ³Lecturer Sri Sai Ayurvedic PG College, Sarsol, Aligarh, Corresponding Author: Abha Singh

Abstract: Age Related Macular Degeneration is one of the eye disorders. With soaring number of incidences of ARMD, is characterized by increased number of visually handicapped in old age. Almost similar clinical condition to ARMD is seen in *Pitta Vidagdha Dristi*, a *Drishtigata* disease as per *Ayurvedic* view pointed in classics. *Pitta Vidagdha Dristi* is grouped as curable disorder which affects the vision. As per *Ayurvedic* classics the basic line of management is similar to *Pittaja Abhishyanda* and the specific treatment of *Pitta Vidagdha Dristi* includes *Nasya* with *Kshirasarpi*, *Parisheka*, *Anjana*, *Tarpana* and *Putapaka*.

Keywords: ARMD, *Pitta vidagdha drishti*, *parishek*, *anjana*, *tarpan*

Introduction: As eyes are the gateways of external world, visual defects tantamount to the obliteration of the world. It is no wonder that a text as old as *Atharva Veda* exclaims “May Surya, the sovereign lord of eyes protect me”.^[1] Age Related Macular Degeneration is one of the eye disorders. With soaring number of incidences of ARMD, is characterized by increased number of visually handicapped in old age. ARMD is the leading cause of the vision loss and blindness in people above 50 years of age. In case of ARMD degeneration of the macula which is a part of the retina responsible for the sharp, central vision needed to read or drive. So, in ARMD central vision loss may occur. In this condition metamorphopsia (Distorted vision), decreased visual acuity, blurred vision, Central or para-central blind spot (scotoma) may occur. In north India alone, 4.7 % of the elderly population is estimated to be affected by macular degeneration. ARMD accounts for 8.7% of world population as cause of visual impairment. About 1.75 million U.S. residents currently have

advanced age-related macular degeneration with associated vision loss, with that number expected to grow to almost 3 million by 2020.

An almost similar clinical condition to ARMD is seen in *Pitta Vidagdha Dristi*, a *Drishtigata* disease as per *Ayurvedic* view pointed in classics. *Pitta Vidagdha Dristi* is grouped as curable disorder which affects the vision.

Ayurvedic Concept: *Pitta Vidagdha Dristi* is a disease condition in which the vitiated *Pitta* (*Alochaka Pitta- Drik Sthitam Pittam*) affects the *Drishti*, characterised by yellowish perception of objects. Later when *Doshas* get confined to the third *Patala* of *Netra* which is *Meda Dhatu ashrita*, the person is not able to see in day time but in the night, he is able to see.^[2] ‘Impairment of *Drishti* manifested as *Vidagdhatata* caused by Vitiated *Pitta*. The word *Vidagdhatata* in this context means partial destruction reflected as functional impairment of visual apparatus/*Drishti*.’^[3]

Pitta

Tap satape pittam

Word *Pitta* is derived from root ‘*Tap*’

Santaparthyasya ‘Tap’ Dhatorchipratyaye Akarsyayetave Varnaviparyaye Tasya Cha Dwivatve Krite Pittmiti, Rupam Aten Pittasya Swabhavikam Santapallkshanam Darshitam.

Thus *Pitta rupa* is derived by *aadesh* of 'Achi' *pratyaya* along with *dwitwa* of *Akara* making the word *Pitta*.^[4]

Dictionary meanings of *Pitta* are^[5]

1. Burning, warming, consuming the heat.
2. Causing pain or trouble, distressing.
3. Heat, Fire, Warmth
4. The Sun
5. The hot season
6. Penance, religious austerities.
7. The end of the hot season and the beginning of the rainy season.

Vidagdha: Word *Vidagdha* is made up of two words; *Vi upasarga* and *Dagdha shabda*.

i) *Vi upasarga*-^[6]

Various meanings of *upasarga Vi* are-(1).

Niyoge- vichitram, (2). *Visheshe- viyukta*, (3).

Nischaya- vikirna, (4). *Aasahane- vitata nadi*,

(5). *Nigrahe- vimanaska*, (6). *Hetu- vibhu*

Drishhti: *Drishhti Stri Drish-Bhave Kitan* ^[7] – (1).

Darshane Chakshushaj, (2). *Gyanmatre*, (3).

Prakashe Cha, (4). *Netre*. Dictionary meanings of

word *Drishhti* are ^[8]- 1. Seeing, 2. Viewing, 3.

Look, 4. Optics, 5. Target. In *Ayurveda Drishhti*

word has been used in two senses-1. *Chakshu*, 2.

Drishhti. As per *Swasagnya* of *Ayurveda* as a part

of *Chakshu Avayava vishesha* in *Netra Sharira*.

Samprapti

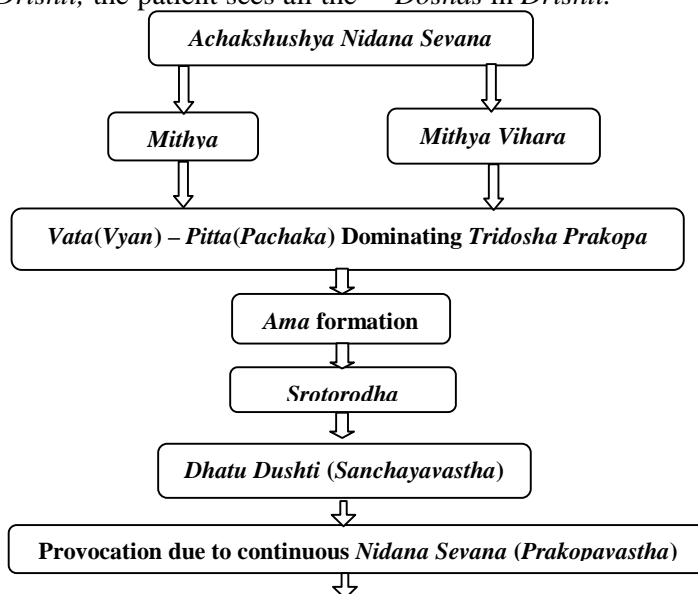
Samanya Netra Roga Samprapti: The pathological events of *Pitta vidagdha Drishhti* begin with the increment of *Doshas* at their respective sites. In reference to *Samprapti* of *Netra Rogas*, *Sushruta* has clearly stated that when *Doshas* get excessively vitiated internally, pervades the *Siras* (vessels) and gets lodged in the first *Patala* of *Drishhti*, the patient sees all the

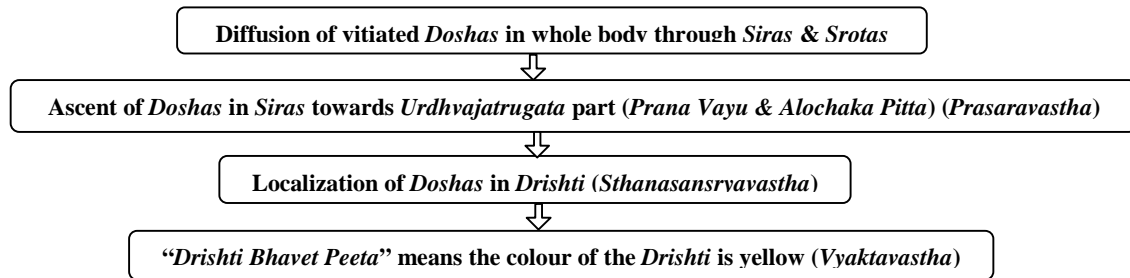
objects as blurred. *Dalhana* opines that the word 'Sira' denotes here '*Rupavaha Sira*' and *Drishhti* indicates inner part of the *Drishhti*.^[9]

The lodgement of *Doshas* in *Patalas* further prevents the functional capacity of *Patalas* and lead to *Avyakta Darshana* or blurred vision. It further inhibits the nutritional supply by obstructing the channels responsible for it. The further involvement of second and third *Patalas* leads to further deterioration of *Drishhti*; whereas in 4th *Patala* affliction terminates into *Linganasha* or loss of vision.

The *Ashraya* of *Malas* in *Indriyas* thus produces both *Upaghata* (*Nasha* or destruction) and *Upatapa* (*Vikriti* or disease) in *Chakshurindriya*. *Acharya Charaka* states that when humors get provoked in the seats of the sense organs, they cause either the impairment or the irritation of the senses concerned. According to *Nimi*, vitiated *doshas* pervade through *Rupavaha siras* and reach *Abhyantara patala* of *drishhti* (innermost *patala*). The *doshas* get localized in different *patalas*, further inhibiting the nutritional supply by obstructing the channels.^[10] According to *Acharya Charaka*, *Doshas* located in *Indriyas* when get vitiated, produce *Upaghata* (destruction) and *Upatapa* (*vikriti*) of *Indriyas*.^[11]

Vishesha Samprapti: According to *Sushruta Samhita* and *Vagbhata Samhita* we have tried to analyze the points which make a sequence to create the pathogenesis of *Pitta vidagdha Drishhti*. Pathogenesis of *Drishhtigata Rogas* consists of *Vimargagamana* of vitiated *Doshas* through *Urdhvagami Siras* and localization of these *Doshas* in *Drishhti*.





Samprapti Ghatakas

Dosha: Pitta-Vata

Dushya: Rasa, Rakta, Meda

Agni: Mandagni leading to Ama formation.

Srotas: Rupavaha srotas

Srotodushiti: Sanga and Vimaarga gamana.

Rogamarga: Madhyama as Shira is the Pradhana Marma.

Adhishtana: Drishti in general

Pathogenesis: When aging process is going on especially with risk factors like ethnicity, family history, smoking, sunlight exposure, hypertension, deranged lipid profile, deficiency of antioxidants and minerals, the changes occur in the retinal pigmented epithelium and the choriocapillaries. In the case of retinal pigmented epithelium, its natural phagocytosis and radical scavenger activity is markedly reduced and at the same time in the surface area and number of endothelial cells of choriocapillaries is also decreased. So, as the result of retinal pigmented epithelium and choriocapillaries changes the main pathological change occur in Bruch's membrane like deposition of lipid and extraneous material and increased thickness.

Clinical Features^[12]

- Blurred vision: Those with non-exudative macular degeneration may be asymptomatic or notice a gradual loss of central vision, whereas those with exudative macular degeneration often notice a rapid onset of vision loss.
- Central scotomas (shadows or missing areas of vision)
- Distorted vision (i.e., *metamorphopsia*) - A grid of straight lines appears wavy and parts of the grid may appear blank. Patients often first notice this when looking at mini-blinds in their home.
- Trouble discerning colors; specifically dark ones from dark ones and light ones from light ones.
- Slow recovery of visual function after exposure to bright light
- A loss in contrast sensitivity
- Drusen
- Pigmentary alterations

- Exudative changes: hemorrhages in the eye, hard exudates, subretinal/sub-RPE/intraretinal fluid

- Atrophy: incipient and geographic

- Visual acuity drastically decreasing (two levels or more) ex: 20/20 to 20/80.

Drusen: Loss of central vision in ARMD is the result of changes that occur in response to deposition of abnormal material in Bruch membrane. This material is derived from the RPE and its accumulation is thought to result from failure to clear the debris discharged into this region. Drusen consist of discrete deposits of this abnormal material located between the basal lamina of the RPE and the inner collagenous layer of Bruch's membrane. The abnormal material also accumulates diffusely throughout Bruch's membrane. Thickening of the inner part of Bruch's membrane is compounded by excessive production of basement membrane-like material by the RPE. It has been postulated that the lipid content of drusen may be a determinant for subsequent behavior.

Investigations

- Amsler's Grid Chart
- Fluorescein Angiography
- Indo-Cyanine Green Angiography
- Ocular Coherence Tomography (OCT)

Management

Ayurvedic Management: Ayurvedic classics the basic line of management is similar to *Pittaja Abhishyanda* and the specific treatment of *Pitta Vidagdha Drishti* includes *Nasya* with *Kshirasarpi*, *Parisheka*, *Anjana*, *Tarpana* and *Putapaka*. *Triphala Ghrita* is advised as a specific drug under the treatment for *Pitta Vidagdha Drishti* in *Sushruta Samhita*, and can be used for *Snehapana* & *Tarpana*.

The treasure of ancient wisdom depicted in the texts of *Ayurveda* needs a careful consideration at this critical juncture. The classics have relied upon vast medicinal flora and drugs of mineral and animal origin.

Acharyas have given equal importance to systemic and local administration of the drugs indicating that *Acharyas* of that time were well

aware of the importance of the topical route in treating the ocular ailments. *Ayurvedic* physicians have formulated single as well as compound drugs for the cure and prevention of various ailments. It is often the total effect of all the ingredients in the formula rather than the action of individual drugs that plays a vital role in therapeutics. Drug combinations are envisaged to serve synergistic action, combined action, toxicity neutralizing action and specific action

This dissertation is a sincere attempt to know the efficacy of *Ayurvedic* drugs along with *Kriya Kalpas (Tarpana and Nasya)* in the management of *Pitta Vidagdha Drishti /ARMD* (Dry type). This disease is considered as *Sadhya Vyadhi* and with above *Kriyakalpa* can be maintained and prevented from further deterioration thus adding quality to a patient's life. But if the condition is left untreated and allowed to persist, he / she will immerse into ocean of darkness that is blindness.

Tarpana: *Akshi-Tarpana* is also one such procedure which is widely indicated in many ophthalmic conditions. It is found to be effective on anecdotal and clinical experience grounds. It is the foremost treatment procedure mentioned in *Sushruta Samhita* for eye disorders.

Nasya: *Urdhvanga chikitsa* is one of the important branches of *Ashtanga Ayurveda* and *Nasya karma* is the main therapeutic measure of *Urdhvajatrugata Vikaras*. All organs, which are above the clavicle, are considered as *Urdhvanga* e.g. *Nasa, Mukha, Netra and Shirah*.

References

1. Atharva Veda 5. 24 – 9
2. Sushruta. (2002). *Sushruta Samhita Dalhana comm.–Nibandhasangraha*, Chaukhambha Orientalia Varanasi, Uttar Tantra 7-35/36
3. Vagbhata. (2000). *Asthanga Hridaya- Sarvanga Sundari Comm. Arundutta*, Chaukhamba Krishna Das Academy, Varanasi, Uttara Tantra Indu commentary 12/16
4. Sushruta. (2002). *Sushruta Samhita Dalhana comm.–Nibandhasangraha*, chaukhambha Orientalia Varanasi, Shutra sthana 15-8.
5. Williams Sir Moneir. (1990). *Sanskrit English dictionary*, Mohanal Banarasidas Publishers, Delhi, first reprint Edition, p. 627
6. Bhattacharya Taranath Tarkavachaspathy. (1969). *Vachaspathya*, Chaukhambha Sanskrit Series office, 1969, VI, p. 4900
7. Bhattacharya Taranath Tarkavachaspathy. (1969). *Vachaspathya*, Chaukhambha Sanskrit Series office, 1969, Volume II, Page number 278.Sir

Modern Management

Anti Angiogenic Drugs

1. Intravitreal triamcinolone acetonide
2. Anecortave acetate
3. Anti VEGF drugs
 - Pegaptanib sodium
 - Bevacizumab
 - Ranibizumab

Laser Photocoagulation

Photodynamic Therapy

Dietary supplementation

- Zinc oxide 80mg
- Cupric oxide 2mg
- Vitamin C 500mg
- Vitamin E 400IU
- Beta carotene (vitamin A 28,000 IU) should be avoided in cigarette smokers because of increased risk of lung cancer

Conclusion: ARMD (Age Related Macular Degeneration) is a disease condition in which the vitiated *Pitta (Alochaka Pitta- Drik Sthitam Pittam)* affects the *Drishti*, characterised by yellowish perception of objects. Word *Drishti* means a part of eye as stated above. *Pitta* is causative factor for bringing *Vidagdhatu* in Eye. Later, when *Doshas* get confined to the third *Patala* of *Netra* which is *Meda Dhatu ashrita*, the person is not able to see in day time but in the night, he is able to see. Thus taking into consideration all grammatical meanings of these words let us move to cumulative meaning as a phrase.

8. Moneir Williams, Sanskrit English dictionary, Mohanal Banarasidas Publishers, Delhi, first reprint Edition, p. 965.
9. Apate, V.S. (2005). *The Student's Sanskrit English Dictionary*, Motilal Banarasidas Publishers, Delhi, Second edition, p.258
10. Sushruta. (2002). *Sushruta Samhita Dalhana comm.–Nibandhasangraha*, Chaukhambha Orientalia Varanasi, Uttar Tantra 7-6
11. Vagbhata. (2000). *Asthanga Hridaya- Sarvanga Sundari Comm. Arundutta*, Chaukhamba Krishna Das Academy, Varanasi, Uttara Tantra Indu commentary 15/12
12. Sharma Ram Karan and Dash Vaidya Bhagwan (Ed.). (2005). *Caraka samhita*. Text with English translation and critical exposition based on Chakrapani datta's ayurveda dipika, Varanasi: Chowkhamba Sanskrit series office, Su. 28/20 p.179
13. www.wikipidia.com/armd