

**Age related macular degeneration (ARMD)
clinical profile and management**

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Abstract:

Age Related Macular Degeneration (ARMD) next to cataract is the leading cause of severe visual loss in elderly. My study is to focus on clinical profile of Age Related Macular Degeneration with effective *Ayurveda* management to increasing in average *longevity* of an individual with advance in science and technology along with traditional management. In research scenario it has been demonstrated that choroidal neovascular lesion of Age Related Macular Degeneration. Account for most of severe loss of vision attributed to this condition. The available treatment option like laser treatment of well demarcated *choroidal neovascular* membrane delays or prevent large loss of visual acuity compared to with no treatment. My study tries to give additional option and contribution of *Ayurveda* to patient affected with Age Related Macular



Degeneration. Macula is area of retina in compassed by the temporal arced of vessel, which correspond to centre of vision. There are two types Dry and Wet Age Related Macular Degeneration based on appearance of fine exudates and tiny hemorrhage in the macular area. In wet AMD treatment of *Raktapitta* should be followed. Though description of macular degeneration is not described in classics. Gradual loss of vision in *Timira* we can assume this regenerative pathology as *Prakopita Vatalakshana* in *Drushti Mandala*. In proper *Tarpak Kapha* result in weakening of function and death of life sensing cells of macula. In dry Age Related Macular Degeneration this cells breakdown slowly and result in loss of central vision. These can be stated *Kaphavata Drushtijanya Timira*. In case of wet AMD abnormal blood vessels start to grow under macula and eventually bleed.

This explains *Raktapitta Drushti*. Management of Age Related Macular Degeneration should be done on the principle of *Vatavyadhi* with *Rasayan Chikitsa*. In classical Ayurveda management carried on by *Abhyang, Swedan, Shiroabhyang, Murdhataila, Karnapuram, Sneha, Nasya, Snehabasti, Tarpana*. My study includes management by *Tarpana (Netrabasti)* with *Patoladi Ghrita*.

Keywords: *Tarpana, Patoladi Ghrita, Raktapitta, Timira, Drushti*.

Introduction:

Age Related Macular Degeneration (ARMD) Is a degenerative disease associated with aging that affects the macula and causes gradual loss of central vision, Which is needed for seeing object clearly in day to day activities. The disease is most often clinically apparent after 50 years of age and is considered to be the leading cause of blindness in the developed and developing countries. Age Related Macular Degeneration is the most common cause of irreversible visual loss which increases with age. The most common causes of Age Related Macular Degeneration (Dry type) are sun light exposure, Smoking, Nutrition, High fat intake, etc. *Drusen* is the diagnostic sign and optical *conerence* tomography is the diagnostic tool for Age Related Macular Degeneration(dry type). Though description of macular degeneration is not described in classics. Gradual loss of vision in *Timir* we can assume this regenerative pathology as *Prakupita Vatalakshana* in *Drushti Mandala*.

Tarpana is the foremost procedure for *Drushtigata Rogas* and provides

Vatapitta shamak properties and nourishment to the eyes and improves visual acuity.

Aims and Objectives:

- 1) To study *etiopathogenesis* of Age Related Macular Degeneration (ARMD) in modern literature.
- 2) To evaluate the efficacy of *Ayurvedic* treatment in dry type of ARMD.

Material and Methods:

PATIENTS :-

Patients attending in the O.P.D. and I.P.D. of Departement of *Shalakyas (Netraroga)* DR R N Lahoti collage And Rughnelay Sultanpur. With sign and symptom of Age Related Macular Degeneration(*Prakupita Vatalakshana*) were selected for the present study.

GROUPING :-

In the present study total 22 patient were register and 21 patients completed the treatment i.e. 11 in group A and 10 in group B.

INCLUSION CRITERIA :-

Patients having sign and symptom of ARMD (dry type)/*Prakupita Vatalakshana*.

EXCLUSION CRITERIA :-

- 1) Patients having other ocular pathologists like glaucoma, High myopia, mature cataract, pan retinal degeneration etc. Were excluded.
- 2) Patients having systemic disease like hyper *cholesterolemia*, renal disorder, liver disorder.

CRITERIA FOR DIAGNOSIS :-

SUBJECTIVE:-

- 1) Diminished vision
- 2) Distorted vision
- 3) Perception of black spots in the field of vision
- 4) Problem for adaptation with dim light

OBJECTIVES:-

- 1) Visual acuity 6/12 or less
- 2) Pin hole 6/18 or less
- 3) Fundus showing macular degeneration
- 4) *Amsler's* Grid aberration
- 5) Ishihara's colours vision testing
- 6) Optical coherence tomography

GRADATION:-

Diminished vision :-

Grade 0: No diminished vision

Grade 1: Dimness in vision but without imitating (inhibiting) activities.

Grade 2: Some time difficulty in performing routine work

Grade 3: Unable to go out independently.

Distorted vision (assessed with *Amsler's* grid)

Grade 0: No distorted vision

Grade 1: Lines are crooked or bent

Grade 2: Boxes appeared different in size and shape from each other.

Grade 3: Boxes and line are wavy, missing.

Perception of black spot:-

Grade 0: No perception of black spot

Grade 1: Occasionally interfering with routine work

Grade 2: Regular interfere with routine work

Grade 3: Can not perform routine work.

Dark adaptation:-

Grade 0: Adaptation to darkness within few seconds

Grade 1: Slow dark adaptation within 10 seconds

Grade 2: Slower dark adaptation within 20 seconds

Grade 3: Slowest dark adaptation after 1 minute.

CRITERIA OF ASSESSMENT:-

SUBJECTIVE:-

Improvement in the subjective symptoms

OBJECTIVES:-

- 1) Improvement in distant vision
- 2) Improvement in pin hole
- 3) Improvement in fundus changes
- 4) *Amsler's gride* aberration changes

GROUPING :-

- **Group A** :- treatment group- where in the *Ayurvedic* treatment (*Patoladi Grita*) was given.
- **Group B** :- control group: - where in antioxidant, multivitamin, modern drug was given.

DURATION :3 Months

DRUG AND DOSES :-

Patoladhi ghrita 30 Gm in each eye having 3 settings for 7 days each up to 1000 Matras with 7 days interval. Follow up will be taken at the 14th, 28th, 42nd, 56th days and clinical finding will be recorded in time period of interval.

STASTICAL ANALYSIS:-

Test applied 't'-at the level of $p < 0.001$ as highly significant, $p < 0.01$ as significant, and $p < 0.05$ as significant.

CRITERIA FOR OVERALL ASSISEMENT OF EFFECT OF TREATEMENT:-

Assessment was done on the basis of special *proforma* through following scoring pattern.

- **Cured:-** 100% relief of the complaints and know recurrence during the follow up.
- **Marked improvement:-** 75 % and up to 100% relief in the complaints.
- **Moderate improvement :-** 50% and upto 75% relief in the complaints
- **Mild improvement:-** 25% and upto 50% relief in the complaints.
- **Unchanged:-** less than 25% relief in the complaints

Observation:

In the study maximum patients i.e. 86.37 % were above 50 year of age, 68.18 % were male, 77.27% were from urban areas, 50 % belong to lower middle class, 77 % were vegetarian, 54 % had regular bowel habit, 63 % had disturbed sleep, 100% patients were habituated to tea history of prolong sunlight exposure and past ocular history could be cited in 59% and 36.36% patients respective.

Result:

ARMD (Dry type) and *prakupit vatalakshana* almost similar. Feature of 3rd *patalogata timira* are also related with retinal disorders. *Divam napashayati, Drishti Peeta varnani, nisham chapashyati*- These feature are strongly in co-relation with the symptoms and sign of ARMD (dry type) but we can also say that ARMD is a part of *prakupit vatalakshana*.

Discussion:

Effect on group a trial on chief complaints of 11 patients eye of ARMD (*Prakupita vatalakshana*)

- In significant clinical improvement was observed in distorted vision while assessing the effect in 4 eyes (33.33%)
- 22.22% relief was found clinically in perception of black spots in the field of vision in 06 size statistically highly significant result were observed in the relief of problem for adaptation with dim light (p<0.001)

Effect on group B contoll group on chief complaints of 10 patients eye of ARMD (*Pakupit vatalakshana*)

- In significant clinical improvement was observed in diminished vision while assessing the effect in 10 eyes.(6.25%)
- 6.25% relief was found clinically in problem for adaptation with dim light in 09 eyes this value is statistically insignificant at the level p<0.10.

Conclusions:

- Incidence of disease is common in geriatric patients i.e. *Vridhnavastha. Dhumanishevanat* (smoking) *Ushnaabhityasya* (excessive sun light exposure) play a major role as a risk factor in ARMD.
- *Kopa, Shoka Mansika Bhavas* also play a important role in causing and progression of ARMD (*Prakupit vatalakshana*). *Drusen* is a pathognomic sign for ARMD (Dry type).

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Conflict of Interest:

Non

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