Ayurvedic management of Retinitis Pigmentosa (Doshandha) - A Case Study

Anju D,1 Pushpa Raj Poudel,2 Ajoy Viswam,3 Ashwini MJ.4

1,2,3Post Graduate Scholar, 4Professor and H O D, Department of Shalakya Tantra, Sree Dharmasthala Manjunatheshwara College of Ayurveda, Hassan, Karnataka, India.

ABSTRACT

Retinitis pigmentosa (RP) is an inherited, degenerative eye disease that causes severe vision impairment due to the progressive degeneration of rod photoreceptor cells in retina. This form of retinal dystrophy manifests initial symptoms independent of age; thus, RP diagnosis occurs anywhere from early infancy to late adulthood. This primary pigmentary retinal dystrophy is a hereditary disorder predominantly affecting the rods more than the cones. The main classical triads of retinitis pigmentosa are arteriolar attenuation, Retinal bone spicule pigmentation and Waxy disc pallor. The main treatment of retinitis pigmentosa is by using Low vision aids (LVA) and Genetic counseling. As such a complete cure for retinitis pigmentosa is not present. So a treatment protocol has to be adopted that helps in at least the symptomatic relief. In Ayurveda, the signs and symptoms of this can be compared with the Lakshanas of Doshandha which is one among the Dristigata Rogas. It is considered as a diseased condition in which sunset will obliterate the Dristi Mandala and makes the person blind at night time. During morning hours the rising sunrays will disperse the accumulated Dosas from Dristi to clear vision. This disease resembles Kaphajatimira in its pathogenesis, but the night blindness is the special feature. Since the disease is purely Kaphaja, a treatment attempt is planned in Kaphara and Brimhana line. The present paper discusses a case of retinitis pigmentosa and its Ayurvedic Treatment.

Key words: Retinitis Pigmentosa, Doshandha, Dristigataroga, Kaphahara, Brimhana.

INTRODUCTION

Retinitis pigmentosa (RP) is inherited, degenerative eye diseases that cause severe vision impairment due to the progressive degeneration of rod photoreceptor cells in retina.[1] This form of retinal dystrophy manifests initial symptoms independent of age; thus, RP diagnosis occurs anywhere from early infancy to late adulthood.[2,3] This primary pigmentary retinal dystrophy is a hereditary disorder predominantly affecting the rods more than the cones.[4] The most common mode is autosomal recessive, followed by autosomal dominant. It appears in the childhood and progresses slowly, often resulting in blindness in advanced middle age. Males are more commonly affected than females in a ratio of 3:2. Disease is almost invariably bilateral and both the eyes are equally affected. The main clinical features of retinitis pigmentosa are Night blindness, difficulty in dark adaptation, tubular vision.[5] The main treatment of retinitis pigmentosa is by using Low vision aids (LVA) and Genetic counseling.[6]

In Ayurveda the signs and symptoms of ptosis can be compared with Doshandha which is one among the Dristigata Rogas. It is considered as a diseased condition in which sunset will obliterate the Dristi Mandala and make the person blind at night time.[7] During morning hours the rising sunrays will disperse
the accumulated Dosas from Dristi to clear vision.\textsuperscript{[8]}
This disease resembles Kaphajatimira in its pathogenesis, but the night blindness is the special feature.\textsuperscript{[8]}

Ayurveda gives the physician’s opportunity to incorporate new medication in the explained conditions and name the newly diagnosed condition based on Nidana, Dosha, Dhatu and Dushya. Keeping this point in mind a case study was done on Retinitis Pigmentosa (Doshandha).

**CASE REPORT**

A male patient aged 26 years was apparently normal 20 years ago. Gradually he developed difficulty in distant vision. His parents observed that he had difficulty in viewing the wall clock and his teacher reported that he has difficulty in visualizing the black board. So his parents took him to an Ophthalmologist and he was provided with spectacles. He used the spectacles for 3 years and he noticed that even though using spectacles, his vision is getting blurred. At the same time he also observed that he has got difficulty in night vision. It was very difficult for him to find objects after sunset.

For these complaints he went to an Eye hospital and from there it was told that he has some hereditary visual problem and there he got his spectacles changed. Further on as he grew up he continued to have more difficulty in night vision. On further interrogation patient revealed the history of consanguineous marriage in family and his father have the same complaints.

In his 10\textsuperscript{th} Std. he again went to another Eye Hospital. There also he was told that he has got a hereditary disorder. The same was repeated in 2008 in another Eye Hospital, Bangalore.

In 2008 he went to Sreedhareeyam Eye Hospital. From there he was told that he has got a hereditary disorder and by the help of Ayurveda, he can prevent the further vision loss. He took a course of treatment from there and then he came to our hospital in 2010.

From 2010, he is regularly taking treatment in our hospital and this is his 6\textsuperscript{th} course.

**General Examination**
- Pallor - Absent
- Icterus - Absent
- Cyanosis - Absent
- Clubbing - Absent
- Lymphadenopathy - Non palpable
- Edema - Absent
- BP - 120/80 mmhg.
- Pulse - 74 bpm

**Systemic Examination**
CVS, CNS, RS, GIT - No abnormality.

**Local Examination**
- **Head posture**: head is kept in straight and erect posture without any tilt of head.
- **Facial Symmetry**: both eyebrows and eyelids are at the same level
  - Symmetrical nasolabial folds
  - Symmetrical angle of mouth on both sides
- **Ocular posture**: Visual axes of two eyes are parallel to each other in primary position and is maintained in all position of gaze.

**Visual Acuity**

<table>
<thead>
<tr>
<th>Visual Acuity</th>
<th>Both Eye</th>
<th>Right Eye</th>
<th>Left Eye</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without glass</td>
<td>6/36(p)</td>
<td>6/36(p)</td>
<td>6/36(p)</td>
</tr>
<tr>
<td>With glass</td>
<td>6/9(p)</td>
<td>6/12(p)</td>
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**Near Vision**

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<tbody>
<tr>
<td>Without Glass</td>
<td>N9(p)</td>
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<tr>
<td>With Glass</td>
<td>N6</td>
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</table>
Eyebrows: Symmetrically placed on each side of face above eyelids
  - Curved with convexity upwards

Eyelids: Upper eyelid covers 1/6th of cornea
  - Lower eyelid touches the limbus

Eye lashes: Upper eye lid - directed forwards, upwards and backwards
  - Lower eye lids - directed forwards downwards and backwards
  - No trichiasis, poliosis.

Lacrimal apparatus: skin over lacrimal sac - redness, swelling absent

Eye ball: proptosis, enophthalmos - absent
  - Movements - uniocular and binocular movements possible

Conjunctiva: Congestion ; absent
  - Chemosis - absent
  - Discolouration - absent
  - Follicles - absent
  - Papillae - absent
  - Pterygium and Pingecula - absent

Sclera: white in colour
  - Covered by bulbar conjunctiva

Cornea: Size; microcornea,macrocornea - absent
  - Shape - concavo convex shaped
  - keratoconus, keratoglobus - absent
  - Surface - smooth
  - Transparency - no opacities found

Antreior chamber: Shallow -torch light method

Iris: pattern - presence of crypts, ridges and collarettes

Pupil: number - one in number
  - Site – centrally placed
  - Shape- round
  
  - Color – black
  - Reflexes – good
  - mydriasis,miosis - absent

Fundus examination
  - Media : hazy
  - Vessels : thin
  - Foveal reflex : dull
  - Bony spicule appearance ++

Treatment

Seka with Triphala Kashaya, Yatimadhu Kashaya, Lodhra Kashaya.

Aschotana with Jeevantyadi Ghritha

Bandana

Seka

Tarpana with Jeevantyadi Ghritha

Bandana

Oral medications:

1) Tab Sapthamruthaloha 1 – 0 – 1 A/F
2) Triphala Ghritha 1tsp - 0 - 1tsp with milk A/F

Improvement

Significant changes were noted in the signs and symptoms.

a) On 3rd day of treatment patient had mild relief from burning sensation of both eyes

b) On 5th day of the treatment patient had relief from blurriness of vision

c) Changes noted in visual acuity is noted below

Visual Acuity on 24/09/2011

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<tr>
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<td>3/60</td>
<td>6/60</td>
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**Visual Acuity on 14/07/2012**

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**Visual Acuity on 06/12/2015**

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**Visual Acuity on 22/02/2016**

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**Visual Acuity on 2/02/2017**

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**DISCUSSION**

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In Ayurveda the signs and symptoms of retinitis pigmentosa can be compared with Doshandha which is one among the Dristigata Rogas. It is considered as a diseased condition in which sunset will obliterate the Dristi Mandala and makes the person blind at night time. During morning hours the rising sunrays will disperse the accumulated Dosas from Dristi to clear vision. This disease resembles Kaphajatimira in its pathogenesis, but the night blindness is the special feature. The treatment protocol adopted here is Kaphahara. Here mainly the drug passes through the blood-aqueous, blood-vitreous and blood retinal barriers to reach the target tissues of eye. Intraocular penetration of topically instilled drugs is determined by the corneal epithelium. Stroma allows rapid passage of the drug through endothelium into the anterior chamber. The medicines are absorbed through the Akshikosa, Sandhi, Sira, Sringatakarma, Ghrana, Asya and Srotas. After absorption, the medicine expels out the vitiated Doshas.

**CONCLUSION**

Retinitis pigmentosa (RP) is inherited, degenerative eye diseases that cause severe vision impairment due to the progressive degeneration of rod photoreceptor cells in retina. In Ayurveda the signs and symptoms of retinitis pigmentosa can be compared with Doshandha which is one among the Dristigata Rogas. Since the pathogenesis of RP and Kaphajatimira are similar, the treatment protocol adopted here was
Kaphahara. Here Triphala, Yastimadhu and Lodhra were selected for Seka as these three drugs are Chakshushya and Tridoshahara. Aschotana and Tarpana was done with Jeevantyadi Ghrita as all the ingredients are Chakshushya and Tridoshahara, Sheetaveerya and Madhuravipaka. Similarly Sapthamrutha Loha and Triphala Ghrita are Tridoshahara and Chakshushya. Here the line of treatment is Kaphahara, Chakshushya and Brihmana. Oral drugs find difficulty to cross blood-aqueous, blood-vitreous and blood-retinal barriers to reach the target tissues of eye. The topical drugs can reach there and achieve higher bio-availability. Even though Doshandha is explained as an Asadhyavyadhi by Acharyas, here an attempt is made such that there is an improvement in the living condition of the patient, since the pathogenesis and some symptoms of RP are similar to that of Kaphaja Timira and it has showed that the Visual acuity is stabilized by this.

REFERENCES


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