



# AN AYURVEDIC CONCEPT OF RETINITIS PIGMENTOSA

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## ABSTARCT

Retina is a key bridge between the light that enters your eyes and the images you see. Special cells that are photoreceptor cells in retina react to light and pass signals to brain to see the object and to identify it. Retinitis pigmentosa is a genetic disorder that causes progressive vision loss throughout life, causing night blindness at first and eventually leading to total blindness. It is a primary pigmentary retinal dystrophy, which predominantly affecting the photoreceptor cells (rods more than cones)<sup>i</sup>. It affects 1 person in 5000 of people. Night blindness, Dark adaptation, Central vision loss and Tubular vision are key features of it along with Attenuation of retinal blood vessels, Bony spicules and Pallor and waxy appearance of optic disc are key signs of it. In *Ayurveda*, symptoms of Retinitis pigmentosa are observed in *KAPHAVIDAGDH DRISHTI*, *HRASVAJADYA* and *NAKULANDHYA* mentioned by *Acharya sushruta*.<sup>ii</sup>

**KEYWORDS** – Retinitis pigmentosa, *Ayurveda*, *Kaphavidagdh drishti*, *Hrasvajadya*, *Nakulandhya*

## INTRODUCTION

Eyes are the best gift from nature to every human being. One is not aware of it's importance as long as one can develop vision problem. Protection of eye sight is one of the most priorities of *Ayurveda*. In *shalakya tantra*, disorders of eyes are mentioned with minute details.

Retina is a key bridge between the light that enters your eyes and the images you see. Special cells that are photoreceptor cells in retina react to light and pass signals to brain to see the object and to identify it.

Retinitis pigmentosa is a genetic disorder that causes progressive vision loss throughout life, causing night blindness at first and eventually leading to total blindness. It is a primary pigmentary retinal dystrophy, which predominantly affecting the photoreceptor cells (rods more than cones). It occurs 1 person in 5000 of

people. No race is known to be exempt or prone to it. Males are more commonly affected than females in a ratio of 3:2<sup>iii</sup>.

Features of Retinitis pigmentosa are- Night blindness, central vision loss, dark adaptation, tubular vision.

In *Sushruta Samhita*, seventy-six eye disorders are mentioned in *Uttartantra*<sup>iv</sup>. Specially visual acuity related disorders are described under *Drishtigat rogas in Sushrut samhita Uttartantra adhyay-7*. Symptoms of Retinitis pigmentosa are observed in three disorders. They are- 1.*Kapha vidagdh drishti* 2.*Hrasvajadya* 3.*Nakulandhya*.

## AIM AND OBJECTIVES

- 1.To understand *Ayurvedic* concept of Retinitis pigmentosa.
- 2.To understand *Kaphavidagdh drishti, Hrasvajadya, Nakulandhya*.

## MATERIALS AND METHODS

Descriptions related to *Kapha vidagdh drishti, Hrasvajadya, Nakulandhya* were collected from different *Ayurvedic* literature, modern texts as well as the data base AYUSH Research Portal, *Ayurvedic* Research Data base, studies available on Research Gate web-based search engines were used to understand and compare the disease.

In the lite of understanding and comparing the disease- An *Ayurvedic* concept of Retinitis pigmentosa is presented in organised manner.

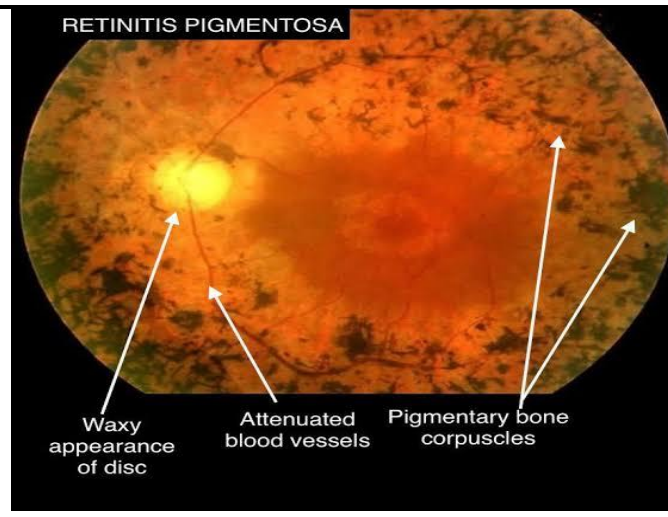
## RESULT

Retinitis pigmentosa is a genetic disorder that causes progressive vision loss throughout life. It causes night blindness which leads to total blindness. It predominantly affecting the photoreceptor cells (rods more than cones).

It occurs 1 person in 5000 of people. No race is known to be exempt or prone to it. Males are more commonly affected than females in a ratio of 3:2.

Night blindness, Dark adaptation, Central vision loss, Tubular vision and Hypermetropia are key symptoms of Retinitis pigmentosa<sup>4</sup>.

Fundus changes in Retinitis pigmentosa are - Jet black spots resembling bony spicules perivascularly seen. Thinning and atrophy of Retinal pigment epithelium. Optic disc becomes pale as well as waxy in appearance. Retinal arterioles are attenuated and may become thread-like in late stages. Annular or ring-shaped scotoma is a typical feature, as disease progresses, scotoma increases anteriorly and posteriorly and only central vision is left<sup>5</sup>. It is difficult to treat Retinitis pigmentosa in western medical science.



*Ayurveda* is medical science based on its basic principles. *Shalakya tantra* is one among the *ashtang ayurveda* mentioned in *Ayurveda*. Seventy-six disorders of eyes are mentioned in *shalakya tantra*. In which there are 12 *Drishtigat rogas*. Retina can be compared with *Drishti* and Retinal disorders are understood under umbrella of *Drishtigata rogas*.

Three *Drishtigata rogas* can be compared with Retinitis pigmentosa. They are *Kapha vidagdha drishti*, *Hrasvajadya*, *Nakulandhya*.

### 1) KAPHAVIDAGDH DRISHTI

तथा नरः श्लेष्मविदग्धदृष्टिस्तान्येव शुक्लानि हि मन्यते तु ॥  
त्रिषु स्थितोल्पः पटलेषु दोषो नक्तान्ध्यमापादयति प्रसह्य ।  
दिवा स सूर्यानुगृहीतचक्षुरिक्षेत रूपाणि कफाल्पभावात् ॥<sup>v</sup> (SU.U.7/37-38)

It is *Kaphapradhan Tridoshaj*, *Ashashtrakrita sadhya vyadhi* mentioned by *Acharya sushrut*. In *kaphavidagdha drishti*, person sees every object as *Shukla varna*. If *doshas* manifested in *Tritiya patal* of *akshi* then person can not see in night. Due to *kapha alpata* and *suryanugrah* nature of *drishti* in daytime, person can see clearly in daytime.

### 2) HRASVAJADYA

स ह्रस्वजाड्यो दिवसेषु कृच्छ्राद्ध्रस्वानि रूपाणि च येन पश्येत् ॥<sup>vi</sup> (SU.U.7/40)

It is *Tridoshaj asadhya vyadhi* mentioned by *Acharya sushrut*. In *Hrasvajadya*, person has difficulty in seeing in daytime. Also person can see every object minimized in size.

*Acharya dalhan* has mentioned as this *roga* is *Chaturtha patal ashrita* and due to *pitta* dominance it is *asadhya*.

### 3) NAKULANDHYA

विद्योतते येन नरस्य दृष्टिर्दोषाभिपन्ना नकुलस्य यद्वत् ॥ ४० ॥  
चित्राणि रूपाणि दिवा स पश्येत् स वै विकारो नकुलान्ध्यसञ्ज्ञः ॥<sup>vii</sup> (SU.U.7/40-41)

It is *Tridoshaj asadhya vyadhi* mentioned by *Acharya sushrut*.

In *Nakulandhya*, person's eyes become *Nakula* (Mongoose) like in structure. Due to this person can see objects with different size and shape in daytime and person can not see in night. *Acharya dalhan* has mentioned as person can see in daytime that means person can not see in night.

Symptoms of Retinitis pigmentosa are observed in all these three disorders are described in this table.

SYMPTOMS OF RETINITIS PIGMENTOSA	KAPHAVIDAGD H DRISHTI	HRASVAJADYA	NAKULANDHYA
Night blindness	+	+	+
Hypermetropia	-	+	+
Difficulty day vision	-	+	+
Peripheral vision loss	-	-	+

## DISCUSSION:-

The progression of Retinitis pigmentosa is observed in these three disorders – *Kaphavidagdh drishti*, *Hrasvajadya* and *Nakulandhya* respectively.

As the disease progresses, Hypermetropia is developed which is observed in *Hrasvajadya*

As the disease progresses further, difficulty in day vision is developed which is observed in *Hrasvajadya* and *Nakulandhya*

Peripheral vision loss is developed further in Retinitis pigmentosa which is observed in *Nakulandhya*

Thus we can say that these three disorders- *Kaphavidagdh drishti*, *Hrasvajadya* and *Nakulandhya* in *Ayurveda* are resembles with Retinitis pigmentosa.

In *ayurveda*, *Kaphavidagdh drishti* is *sadhya* whereas *Hrasvajadya* and *Nakulandhya* are *asadhya*.

So we can now understand that the early stage of Retinitis pigmentosa can be treated with proper line of treatment in *ayurveda*.

## CONCLUSION :

Retinitis pigmentosa is a genetic disorder that causes progressive vision loss throughout life.

Symptoms of Retinitis pigmentosa are observed in three disorders. They are- 1.*Kapha vidagdh drishti* 2.*Hrasvajadya* 3.*Nakulandhya*.

Early stage of Retinitis pigmentosa can be treated with proper line of treatment with *ayurveda*.

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