



## Case Study

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### AYURVEDIC MANAGEMENT OF VERNAL KERATOCONJUNCTIVITIS / *KAPHAJA ABHISHYANDA*: A CASE STUDY

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#### ABSTRACT

Vernal keratoconjunctivitis (VKC) is the commonest allergic eye disease in childhood. The major complaints of VKC patients are intense itching, tearing, photophobia and mucous discharge. This condition can be correlated with *Kaphaja Abhishyanda* (*Kapha* dominant conjunctivitis) in *Ayurvedic* texts. *Kriyakalpa* (ocular therapeutic procedures) procedure, along with oral medications, successfully manages symptoms and reduces the recurrence rate. A nine-year-old female patient consulted the eye OPD of the National Institute of Ayurveda, Jaipur, with chief complaints of *atikandu* (excessive itching), *akshiraga* (redness in the eyes) and *jalsrava* (watery secretion) in both eyes since three months. Slit lamp examination revealed the presence of gelatinous opacification (approx. 2 mm in size) at the limbus, hyperaemia in the palpebral conjunctiva and triangular congestion in the bulbar conjunctiva. The rest of the eye assessment was normal. Owing to the symptoms and signs, the case was diagnosed as VKC, which can be correlated with *Kaphaja Abhishyanda*. Hence this patient was treated with *Kriyakalpa* (ocular therapeutic procedures) like *Ashchyotana* (eye drops), *Nasyam* (medications through nasal route), *Vidalaka* (Application of medicated paste on the outer part of the eye), etc., along with oral medications. *Kriyakalpas* (ocular therapeutic procedures), as well as internal medications, give significant results in the management of vernal keratoconjunctivitis.

**Keywords:** *Kaphaja Abhishyanda*, *Netra Kriyakalpa*, Vernal keratoconjunctivitis.

#### INTRODUCTION

Vernal keratoconjunctivitis (VKC) is a bilateral, seasonal, external ocular inflammatory disease of unknown cause. VKC is a seasonal atopic disease in young children, which occasionally becomes severe and leads to shield ulcers and other complications. The incidence of allergic eye disease was 20.1%, and VKC reported 3.9% of eye allergies in childhood.<sup>1</sup> Pathogenesis of VKC is characterized by T helper 2 lymphocyte alteration. T helper 2 lymphocytes cause hypersecretion of Immunoglobulin E, and for differentiation and activation of mast cells and Eosinophils, histamine release from the mast cells and basophils results in the immediate inflammatory reaction and the recruitment of inflammatory cells, which leads to other toxic cell mediators with corneal epithelial damage.<sup>2</sup> Mast cell stabilizers, topical NSAIDs, and steroids are the current therapy options. However, they only provide symptomatic relief and have the potential to cause side effects, limiting their long-term use. In children and adolescents, allergic conjunctivitis is frequent and frequently confused with infectious conjunctivitis. The most problematic type of allergic conjunctivitis is vernal keratoconjunctivitis (VKC), which causes the kid to experience severe itchiness, grittiness, mucoid discharge, redness, lacrimation, photophobia, and other symptoms. The condition is persistent and chronic, worsening in the summer<sup>3</sup>. The primary allergens are thought to be pollens. However, current research indicates that VKC is a perpetual occurrence and that pollens are not the only contributing factor.<sup>4</sup>

According to *Ayurvedic* principles, the spring season is when *Kapha prakopa* (*Kapha* vitiation) occurs, which is indicated by the name of the ailment, spring catarrh. The *Kapha* dominant stage of life is childhood, and the disease's clinical signs resemble those of *Kaphaja Abhishyanda*.<sup>5</sup> *Kaphaja Abhishyanda* and VKC share a striking clinical similarity. The line of treatment of *Abhishyanda* is *langhana* (fasting), *lepana* (masking), *swedana* (fomentation), *siravedhana* (bloodletting), *virechana* (laxative), *anjana* (application of medicine on the inner side of the lower lid) and *ashchyotana* (instillation of the drug in the form of drops into the eyes) depending on the presentations of the disease.<sup>6</sup>

#### Patient Information

A 9-year-old female patient consulted the Shalaky OPD of the National Institute of Ayurveda, Jaipur, with chief complaints of excessive itching, redness and watery secretion in both eyes for three months. There was no specific family or history of the patient. A general examination revealed normal physiological findings. Built of the patient was moderate, with a height of 130 cm, and a weight of 26 kg, BP of the patient was 110/70, pulse rate was 74/min.

#### Clinical Findings

Slit lamp examination revealed the presence of gelatinous opacification (approx. 2 mm in size) at the limbus, hyperaemia in the palpebral conjunctiva and triangular congestion in the bulbar conjunctiva. The rest of the eye assessment was normal. Ocular examination findings are shown in Table 1 and Figure 1.

**Diagnostic Assessment**

According to the symptoms and signs, the case was diagnosed as vernal keratoconjunctivitis (VKC). According to *Ayurveda* classics, the clinical features of VKC can be correlated to features of *Kaphaja Abhishyanda*. Eye examination before treatment is shown in Figure 1.

**Dashavidha Pariksha (ten-fold examination of patient)**

The *dashavidha pariksha* (ten-fold examination of patient) revealed that patient *prakriti* (body composition) was *Vata-Pitta*, *vikruti* (pathology) was *Kapha* dominant, *pramana* (body

measurement) was *alpa, sara* (*dhatu* body type), *samhanana* (compactness), *satmya* (habituation), *vyayam shakti* (strength of exercise), *aharashakti* (food intake capacity) was *madhyam*, *vaya* (age) was *bala* (strength).

**Timeline**

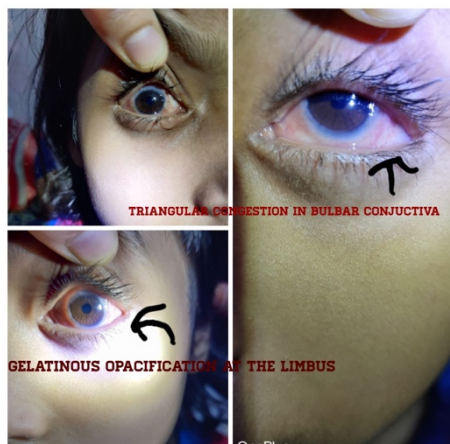
The patient was treated with *Netra Kriyakalpas* (eye procedures) like *Ashchyotana* (instillation of the drug in the form of drops into the eyes), *Nasyam* (nasal drops), *Vidalaka* (application of medicated paste on the outer part of the eye). The posology and details of the medications administered are depicted as shown in Table 2.

**Table 1: Ocular examination findings before treatment dated 19/7/22**

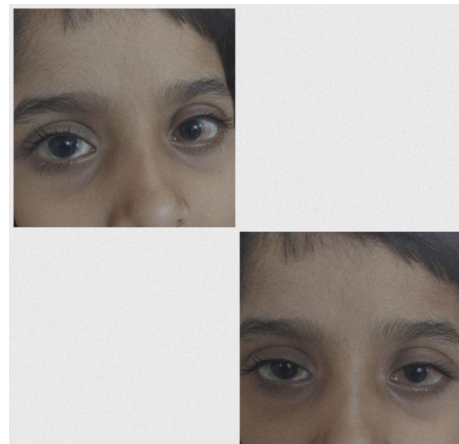
Structure	Examination	Right eye/OD	Left eye/OS
Eyelashes	Position	Blepharitis Matting of lashes	Blepharitis Matting of lashes
Eyelids	Position	Tylosis	Tylosis
Eyeball	Position Visual axis	Normal	Normal
Conjunctiva	Palpebral conjunctiva Bulbar conjunctiva	Hyperemia in palpebral conjunctiva. Triangular congestion in the bulbar conjunctiva.	Hyperemia in palpebral conjunctiva. Triangular congestion in the bulbar conjunctiva.
Cornea	Transparency	Gelatinous opacification (approx. 2 mm in size) at the limbus	Gelatinous opacification (approx. 2 mm in size) at the limbus
Pupil	Shape and Size Reaction	Normal	Normal

**Table 2: Timeline and therapeutic intervention**

S.N	Date	Advice – Kriyakalpa Procedure	Oral Medicine	Observation
1.	19/7/22 to 25/7/22	<b>Netra Prakshalana Drugs</b> <i>Triphala churna</i> 1 gm, <i>Lodhra</i> 1 gm, <i>Yashti churna</i> 1 gm, <i>Shigru patra</i> 1 gm <i>Duration</i> 7 days  <b>Vidalaka</b> <i>Chandrodaya varti</i> 2 gm <i>duration</i> 7 days	<i>Triphala Guggulu</i> 250 mg bd with warm water <i>Gandhaka rasayana</i> 250 mg bd with honey <i>Haridra khand</i> 5 gm bd with milk	Visited hospital with complaints of Redness, itching, and watering secretion from both eyes for 3 months.
2.	2/8/22 to 8/8/22	<b>Avagunthana Drugs</b> <i>Triphala Kwatha</i> 3 gm, <i>Chincha patra</i> 3 gm, <i>Amalaki patra</i> 3 gm, <i>Haridra</i> .  <b>Nasyam</b> <i>Brihat Marichayadi taila</i> <b>Dose</b> 6 drops. <b>Duration</b> 7 days  <b>Netra Pariseka</b> <i>Triphala</i> 1 gm, <i>Lodhra</i> 1 gm, <i>Yashti</i> 1 gm, <i>Nagkesar</i> 1 gm.	Same medicine continues.	No itching, no watering from eyes
3.	23/8/22 to 29/8/22	<b>Ashchotana</b> <i>Shigru</i> 2.5 ml, <i>Madhu</i> 2.5 ml, <i>Tankana bhasma</i> 500 mg.		Triangular congestion reduced. Gelatinous opacification reduced. The patient felt relieved from all complaints



**Figure 1: Before Treatment**



**Figure 2: After Treatment**

## Follow-Up and Outcome

After the treatment, there was a remarkable reduction in the symptoms and the patient, i.e., *kandu* (itching), *akshiraga* (redness) and *jal srava* (watery secretion). Clinical examination revealed that triangular congestion and gelatinous opacification were reduced, as shown in Figure 2. After treatment, there was a remarkable reduction in the signs and symptoms, and the patient had 90% relief.

## RESULT AND DISCUSSION

In many cases, vernal keratoconjunctivitis is considered an atopic allergic disorder in which IgE-mediated mechanisms play an essential role. *Acharya Sushruta* has mentioned in the 6<sup>th</sup> chapter of *Uttaranta* that, *Abhishyanda* (conjunctivitis) is the causative factor for all eye diseases and, if neglected, leads to other serious complications such as *Adhimantha* (glaucoma), *akshishopha* (swelling of eyes) etc.<sup>7</sup> Hence *Abhishyanda* (conjunctivitis) should be treated giving due importance to protect the eyes from further complications.

*Netra prakshalana* (ocular therapy by streaming) is a process in which the eyes are washed with medicated liquid for a specific period. The active principles are aqueous extracts which are dropped continuously in the form of a stream from a height of four *angulas* (fingers).<sup>8</sup> These decoctions are diluted with tears and drained through the nasolacrimal duct. *Vidalaka* is the application of medicated paste on the eyelids' outer surface, avoiding the eyelashes. It is indicated in *daha* (burning), *upadeha* (hotness), *asru* (watery eyes), *sopha* (oedema), *raga* (congestion), *toda* (pricking pain), *bheda* (breaking pain), *kandu* (itching) and *gharsa* (rubbing). The thickness of the paste in *Vidalaka* is similar to that of *mukhalepa* (face mask), like *doshaghana* (reducing *dosha*). Medicine is absorbed through the skin, and the mechanical effect of pressure helps reduce intraocular pressure by vasodilatation and aqueous drainage. *Avagunthana* (*potali* containing drugs is dipped in hot *kashaya* and fomentation is given around the eyes) is a process in which drugs are tied in a cloth and loosely on the eyes. It has been mentioned explicitly by *Ashtanga Hridaya* in the management of *Abhishyanda*.<sup>9</sup> *Chandrodaya varti* is a herbo mineral drug commonly used as an ophthalmic suppository. It has *katu* (pungent), *tikta* (bitter), *kashaya rasa* (astringent taste), *ruksha* (dry), *laghu* (light) and *tikshna guna* (sharp properties), *ushna virya* (hot potency), *katu vipaka* (pungent after digestion) and the action is *Kaphvataghna* (pacifying *Kapha* and *Vata*). It performs the action of *Kapha chedana* (breaking) and *lekhana* (scrapping). *Ashchyotana* is the instillation of a few drops of medicines into the open eye from a height of two *angula* (fingers)<sup>10</sup>. These drops are prepared with ingredients like *Shigrapatra* (*Moringa oleifera*), honey, and *tankana* (Sodium Borate), which has antibacterial and anti-inflammatory activity. *Shigrapatra* has *katu* (pungent), *tikta* (bitter), *ushna virya* (hot potency), *katu vipaka* (pungent after digestion) and *Kapha shamaka* (pacifying *Kapha*) properties<sup>11</sup>. Honey has properties like *lekhana* (scrapping), *sandhana* (binding), *ropana* (healing) and *tridoshghana* (reduces three *doshas*). *Takana bhasma* has properties like *Kapha-Vatahara* (which pacifies *Kapha* and *Vata*). All these properties of *Ashchyotana* drugs promote *Kaphahara* (reduces *kapha*) action along with *lekhana karma* (scrapping) which is necessary for *Kaphajanetra roga* (eye disorders due to *Kapha* vitiation). *Shigru* (*Moringa oleifera* L.) has high antioxidants and anti-inflammatory, antimicrobial and anthelmintic properties<sup>12</sup>. It is the first line of treatment in eye diseases, and it should be done on the fourth day of disease manifestation or after *amalakshanas* (*ama* symptoms) are settled down. It helps in the drainage of excessive tears in the

nasolacrimal duct. *Triphala Guggulu*, *Triphala*, along with metabolic stimulant activity, breaks the *abhishyandatva* of the *srotas* (channels) by virtue of its *ushna* (hot) and *ruksha* (dry) properties. Not only this; the *Tridoshara* (reducing three *doshas*) combination (*Triphala*) will maintain the homeostasis in the body and eye as a whole by further preventing the pathogenesis.<sup>13</sup> *Gandhaka rasayana*, *Gandhak rasayana* has *agnideepaka* (increasing digestive fire), *pachaka* (digestion), *Kaphaghna* (reducing *kapha*), *kledaghna* (reducing *kleda*), *raktaprasadak* (blood purifying), *krimighna* (wormicidal), *Kushthaghna* (reduces skin ailments) properties. It is more effective for *Kapha pradoshya vyadhi* (*Kapha* dominant disease) than *rakta dushti* (blood diseases). Thus, very useful to manage the symptoms caused due to *Kaphaja Abhishyanda*. *Haridra khanda*, It comprises *Haridra* (*Curcuma longa* Linn.), *Triphala*, *Trikatu*, *Trijata*, *Vidanga* (*Embelia ribes*), *goghrita* and *sita*. It has properties like *shithahara* (reduce coldness), *deepana* (appetizer), and *pachana* (digestive). It has a potent anti-allergic effect, so valuable for all types of allergic conditions.<sup>14</sup>

## STRENGTHS AND LIMITATIONS OF THIS CASE

This was a case with customized *Ayurveda* medical care designed after a detailed patient examination. This treatment might need changes according to age and the causative factor of the disease.

## CONCLUSION

*Kaphaja Abhishyanda* (VKC) is a benign but distressing ailment of childhood, which can be better managed/treated with simple, safe, non-toxic, cheap, and effective *Ayurvedic* treatment. A combination of *Kriyakalpas* (eye procedures) and internal medications makes the best combination for treating such chronic conditions. Further trials may be conducted to standardize these treatment protocols.

## DECLARATION OF PATIENT CONSENT

Authors certify that they have obtained the patient consent form, where the patient has given his consent for reporting the case along with the images and other clinical information in the journal. The patient understands that his name and initials will not be published, and due efforts will be made to conceal his identity, but anonymity cannot be guaranteed.

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