



AYURVEDIC MANAGEMENT OF NETRABHISHYANDA (VIRAL CONJUNCTIVITIS): CASE SERIES

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Abstract:

Viral conjunctivitis is characterized by redness, burning, pain, foreign body sensation, lid swelling, photophobia, and watering from the eyes.ⁱ It can be correlated with *Rakta-Vataja Netrabhishyanda* based on the similarity in signs and symptoms. This study was conducted on six patients with *Netrabhishyanda* (viral conjunctivitis) who approached the outpatient division of the hospital. They were managed by *Langhana, Aschyotana, Netraparisheka, Bidalaka, and Abhyantara Aushadha*, following the classical principles of *Ayurveda*. A complete cure was observed within 5-7 days of treatment, and no further complications were observed.

Case series:

In this case series, six patients were included who have visited the *Shalakyatanrta* OPD of Government Akhandanand *Ayurved* College, Ahmedabad, Gujarat, India with a primary history of redness, burning sensation, foreign body sensation, pain, photophobia, lid swelling and watering from eyes. Cases that were evaluated initially included the torch light examination, vision acuity test and slit lamp examination of both eyes thoroughly. Conjunctival congestion grading was done as per Mandell slit lamp classification system.ⁱⁱ Demographic data was collected irrespective of age, gender and residence.

Case series:

Case 1:

On 26 June, 2023, a 23-year-old Hindu female patient, residing in Paldi, Ahmedabad, had come to the OPD of Government Akhandanand Ayurved Hospital, Ahmedabad. She had the chief complaints of redness, pain, photophobia, swelling of eyelids, and foreign body sensation in her left eye for one day. Due to these symptoms, she had been unable to do her routine work.

Clinical Examinations

Torch light examination		
Right eye		Left eye
Normal	Eyelids	Upper-swelling
Normal	Eyelashes	Normal
Normal	Palpebral conjunctiva	Severe Congestion
Normal	Bulbar conjunctiva	Severe Congestion
Normal	Cornea	Normal
Normal	sclera	Normal
NSNR	Pupil	NSNR
Greyish black	Pupillary glow	Greyish black

*NSNR = Normal size & Normal reaction

VA	DVA	Pin Hole	NVA
RE	6/6	6/6	N/6
LE	6/6	6/6	N/6

Slit Lamp Examination

Left eye

Left conjunctival congestion – Grade 3

Subconjunctival haemorrhage - +++

Left Cornea – clear

Case 2:

A 27-year-old Hindu female patient, residing in Shahibag, Ahmedabad, visited the OPD of Government Akhandanand Ayurved Hospital, Ahmedabad on 30 June, 2023. She had the chief complaints of redness, pain, swelling of the eyelid, and photophobia in both eyes for two days. These symptoms were causing her difficulties in reading and riding a vehicle. Therefore, she sought treatment at the OPD.

Clinical Examinations

Torch light examination		
Right eye		Left eye
Upper – swelling	Eyelids	Upper - swelling
Normal	Eyelashes	Normal
Congestion	Palpebral conjunctiva	Congestion
Congestion	Bulbar conjunctiva	Congestion
Normal	Cornea	Normal
Normal	Sclera	Normal
NSNR	Pupil	NSNR
Greyish black	Pupillary glow	Greyish black

VA	DVA	Pin Hole	NVA
RE	6/6	6/6	N/6
LE	6/6	6/6	N/6

Slit Lamp Examination

Both eyes

Upper eyelid swelling – Rt > Lt

Bulbar conjunctival congestion – Grade 2

Cornea – clear

Case 3:

A 26-year-old Hindu, male patient residing in Shahibag, Ahmedabad came to the OPD of Government Akhandanand Ayurved Hospital, Ahmedabad on 10 July, 2023 having the chief complaints of redness, photophobia, watery discharge, swelling of eyelids in right eye for one day. So, he came for the treatment of the same.

Clinical Examinations

Torch light examination		
Right eye		Left eye
Upper –swelling	Eyelids	Normal
Normal	Eyelashes	Normal
Mild Congestion	Palpebral conjunctiva	Normal
Mild Congestion	Bulbar conjunctiva	Normal
Normal	Cornea	Normal
Normal	Sclera	Normal
NSNR	Pupil	NSNR
Greyish black	Pupillary glow	Greyish black

VA	DVA	Pin Hole	NVA
RE	6/6	6/6	N/6
LE	6/6	6/6	N/6

Slit Lamp Examination

Right eye

Conjunctival congestion – Grade 1

Cornea – clear

Case 4:

Presenting with chief complaints of redness, pain, a burning sensation, watery discharge, photophobia, a foreign body sensation, and swelling of the eyelids in both eyes for one day, a 25-year-old Hindu female from Baherampura, Ahmedabad, sought medical attention at the OPD of Government Akhandanand Ayurved Hospital, Ahmedabad on 17 July, 2023.

Clinical Examinations

Torch light examination		
Right eye		Left eye
Swelling, tenderness	Eyelids	Swelling, tenderness
Normal	Eyelashes	Normal
Severe congestion	Palpebral conjunctiva	Severe congestion
Severe congestion	Bulbar conjunctiva	Severe congestion
Normal	Cornea	Normal
Normal	Sclera	Normal
NSNR	Pupil	NSNR
Greyish black	Pupillary glow	Greyish black

B/L mucoid discharge from inner canthus

VA	DVA	Pin Hole	NVA
RE	6/18	6/12(p)	N/6
LE	6/9	6/9	N/6

Slit Lamp Examination

Right eye

Lid oedema

Conjunctival congestion – Grade 3

Sub conjunctival haemorrhage - +++

Cornea – clear

Case 5:

A 20-year-old man from Maninagar, Ahmedabad went to the hospital on 24 July, 2023. He had problems with his right eye for two days. His eye was red and swollen. It felt like something was in his eye. He also had a burning feeling, was sensitive to light, and had watery discharge.

Clinical Examinations

Torch light examination		
Right eye		Left eye
Upper - swelling	Eyelids	Normal
Normal	Eyelashes	Normal
Mild congestion	Palpebral conjunctiva	Normal
Mild congestion	Bulbar conjunctiva	Normal
Normal	Cornea	Normal
Normal	Sclera	Normal
NSNR	Pupil	NSNR
Greyish black	Pupillary glow	Greyish black

VA	DVA	Pin Hole	NVA
RE	6/6	6/6	N/6

LE	6/6	6/6	N/6
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Slit Lamp Examination

Right eye

Conjunctival congestion – Grade 2

Sub conjunctival haemorrhage - +

Right Cornea – clear

Case 6:

A 36-year-old *Hindu*, female patient residence of Naranpura, Ahmedabad came to the OPD of Government Akhandanand Ayurved Hospital, Ahmedabad on 24 July, 2023 having the chief complaints of redness, swelling of eyelids, photophobia, foreign body sensation and watery discharge from both eyes for 2 days.

Clinical Examinations

Torch light examination			
Right eye			Left eye
Upper – swelling	Eyelids		Upper – swelling
Normal	Eyelashes		Normal
Congestion	Palpebral conjunctiva		Congestion
Congestion	Bulbar conjunctiva		Congestion
Normal	Cornea		Normal
Normal	Sclera		Normal
NSNR	Pupil		NSNR
Greyish black	Pupillary glow		Greyish black

VA	DVA	Pin Hole	NVA
RE	6/6	6/6	N/6
LE	6/6	6/6	N/6

Slit Lamp Examination

Both eye

Conjunctival congestion – Grade 2

Subconjunctival haemorrhage - ++

Cornea – clear

Treatment protocol given to all patients:

After observing all signs and symptoms of viral conjunctivitis, treatments were advised as mentioned below:

No.	Drug	Dose Per Day	Route of administration
1.	<i>Guduchyadi Kwatha</i> (40 ml)	Twice a day	Orally
2.	<i>Triphala churna</i> – 1 g <i>Yashtimadhu churna</i> – 500 mg <i>Punarnava churna</i> – 500 mg <i>Lodhra churna</i> – 500 mg <i>Rasanjana churna</i> – 125 mg	Twice a day & 4 - 6 times / day (10-12 drops)	<i>Netra Parisheka</i> (Ocular Irrigation) & <i>Aschyotana</i> (Eye Drops)
3.	<i>Triphala churna</i> – 3 g <i>Yashtimadhu churna</i> – 1 g <i>Punarnava churna</i> – 1 g <i>Lodhra churna</i> – 1 g <i>Rasanjana churna</i> – 500 mg	Twice a day	<i>Bidalaka</i> (Paste application over Eyelids)
4.	<i>Sudarshana ghanavti</i> – 500 mg	3 tab twice a day	Orally

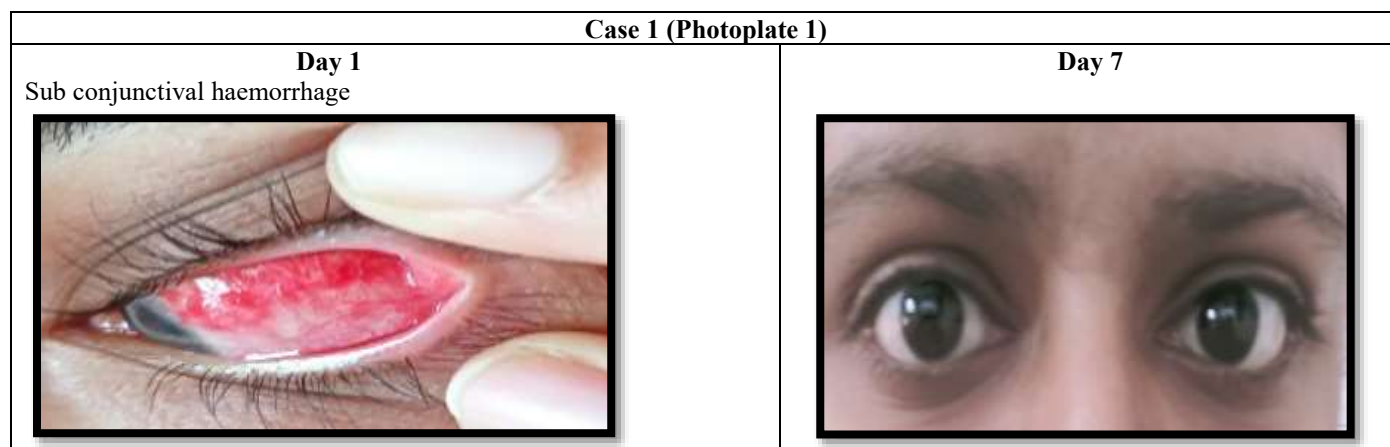
*patient 1,2 and 4 were prescribed *Kaishora Guggulu*, with a dosage of 3 tablets two times a day, to alleviate eye pain as a part of their treatment.

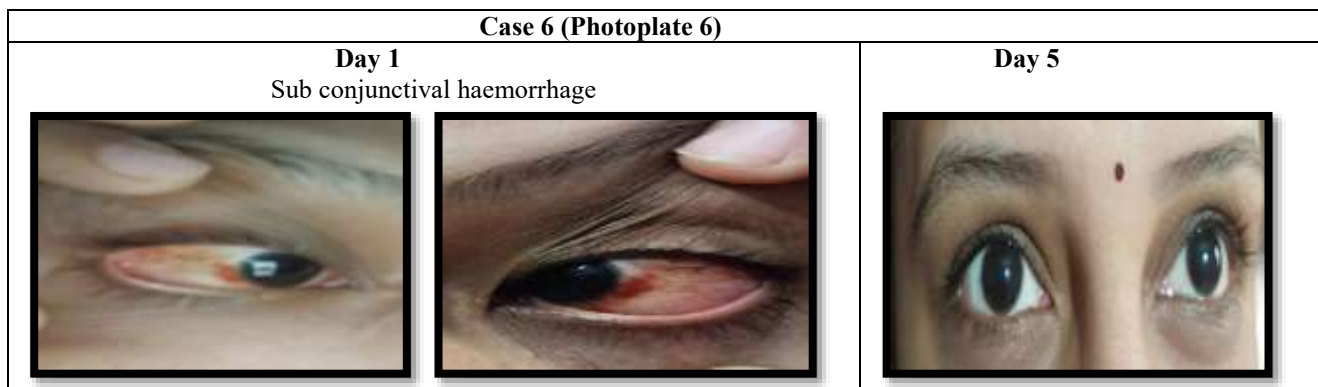
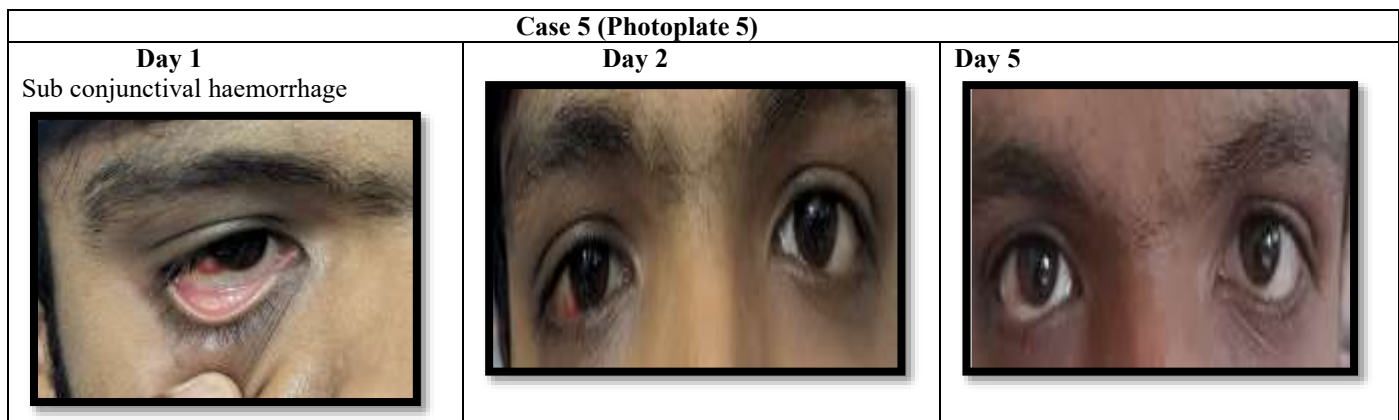
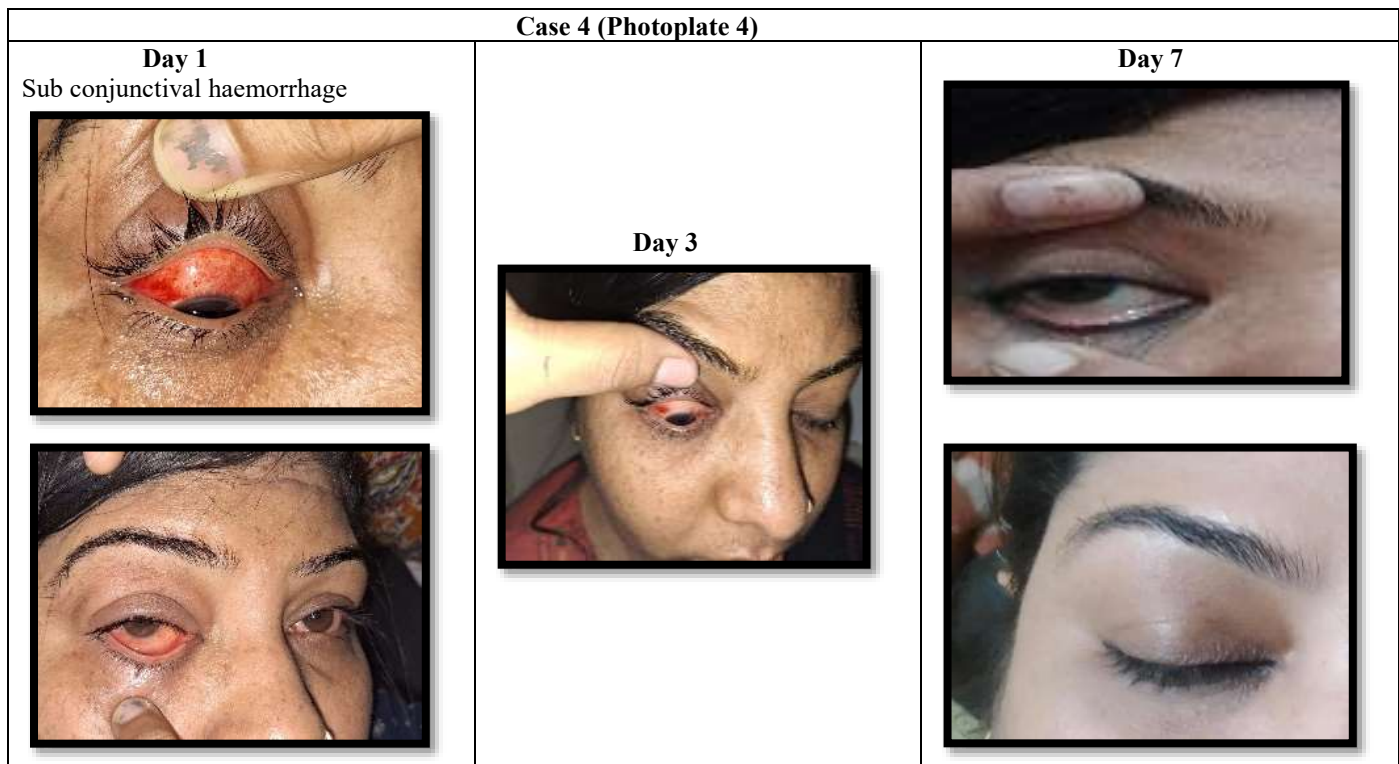
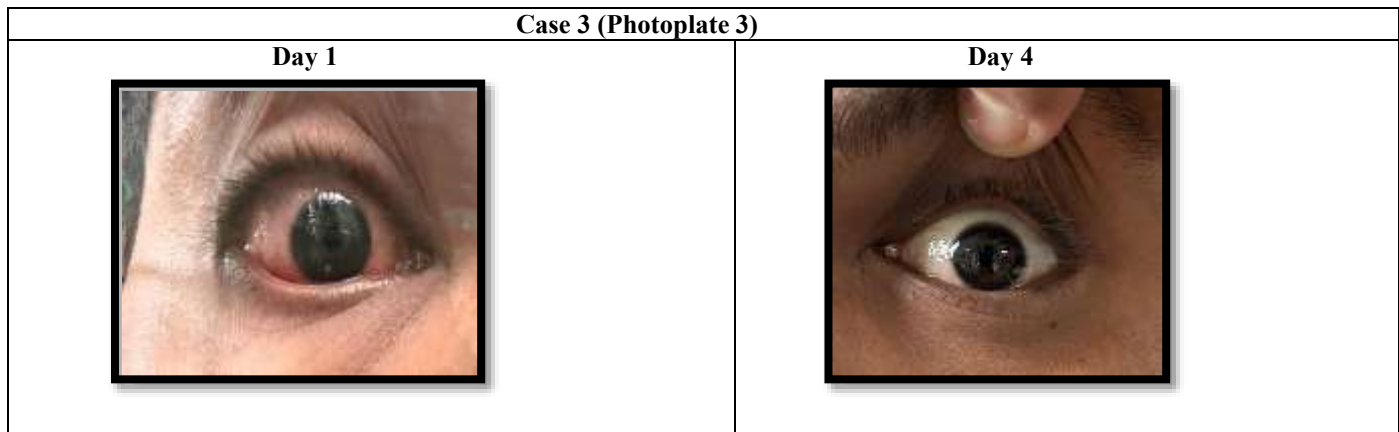
Pathya-apthya:

<i>Pathya (wholesome diet and regimen)</i>	<i>Apathya (unwholesome diet and regimen)</i>
<i>Langhana</i> (light diet) like Green-gram soup, Vegetable soup, Dal-rice, vegetables like bottle gourd, sponge gourd, ridge gourd, bitter gourd, pointed gourd, Luke warm water	Excess sour and salty items, curd, fermented items, sprouts, spicy food, cold drinks, meat
Wearing dark goggles, Use separate daily items like towel, handkerchief etc., frequent handwash	Anger, Sorrow, Sunlight, Suppression of natural urges, Frequently touching eyes, Digital screen use

Observation and result

The case series involved administering *Langhana*, *Aschyotana*, *Bidalaka*, and *Netraparisheka* for 7 days, with oral medications continuing for the same duration. Notable relief in symptoms occurred within 3 to 7 days, depending on severity. Patients 1, 2, 3, and 5 had contact with viral conjunctivitis patients in the hospital. Patient 4 had visited crowded areas, and Patient 6 contracted viral conjunctivitis due to close exposure to patients in the hospital. Patient 1 had severe sub-conjunctival haemorrhage, which was completely relieved in 7 days with this treatment, as shown in Photoplate 1. In Patient 2 (Photoplate 2), symptoms such as photophobia, lid swelling, and redness decreased markedly in 3 days and were completely cured within 5 days. Patient 3 had mild symptoms of viral conjunctivitis, which were completely resolved within 4 days (Photoplate 3). Patient 4 had severe sub-conjunctival haemorrhage. She experienced mild improvement in symptoms like photophobia, pain, lid swelling, and watering from the eyes in 3 days, and all the signs and symptoms were completely gone in 7 days of Ayurvedic treatment (Photoplate 4). Patients 5 and 6 were cured completely in 5 days, as both of them had mild sub-conjunctival haemorrhage, as shown in Photoplate 5 and Photoplate 6, respectively. From this study, it is revealed that all the patients were found to be completely cured within 7 days with *Ayurvedic* treatment of *Netrabhishyanda*.





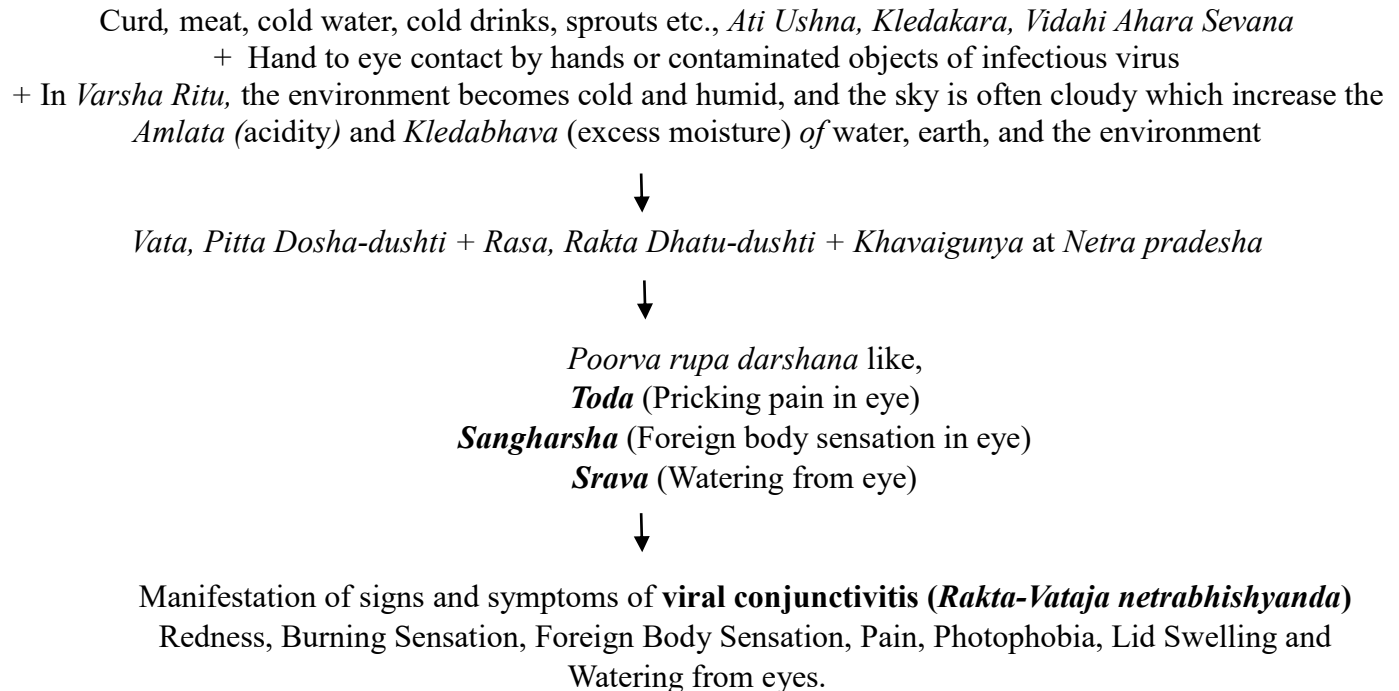
Discussion

Viral conjunctivitis, also known as pinkeye, is an infectious eye condition characterized by symptoms like redness, burning, pain, and sensitivity to light. Although it usually resolves on its own within 2 to 3 weeks,ⁱⁱⁱ treatments are primarily aimed at providing relief from symptoms and include the use of lubricating tear drops and antibiotic eye drops to prevent secondary infections. If left untreated, it can lead to complications such as punctate keratitis and corneal ulceration.^{iv}

In *Ayurveda*, communicable diseases are referred to as *Aupsargika Rogas*. Epidemics, can be correlated with *Janapadodhwansa*, are believed to be caused by four main factors: *Vayu*, *Jala*, *Kala*, and *Desha*^v. *Aupsargika Roga*, a disease that can be transmitted from one person to another, occurs due to the vitiation of *Doshas*, deprivation of *Dhatu*, *Agnimandya*, and obstruction in *Srotasa*. The disease becomes more severe when the host's immunity (*Bala*) is weak, allowing microorganisms (*Bhuta*) to affect the person.

In *Ayurveda*, epidemic viral conjunctivitis is associated with a condition called *Netrabhishyanda*, which is believed to occur due to the vitiation of *Rakta-Vata Dosha*. This correlation is based on the similarity of signs and symptoms. According to *Acharya Sushruta*, *Vataja-abhishyanda* is characterized by *Nistodana* (Pricking sensation), *Stambhana* (Restricted movements), *Romaharsha* (Horripilation), *Sangharsha* (Foreign body sensation), *Parushya* (Hardness), *Shiroabhitapa* (Headache), *Vishushkabhava* (Dryness) and *Shishirashruta* (Cold or watery discharges)^{vi} and *Raktaja-abhishyanda* is characterized by *Lohita Netrata* (Redness of eyes), *Raaji Samantada Atilohita* (Conjunctival congestion), *Netradaha* (Burning sensation in eyes), *Bashpa Samucchhrayata* (Excessive lacrimation), *Dhumayana* (Feeling of hotness in eyes).^{vii}

Acharya Sushruta has enumerated *Netraabhishyanda* as one of the *Aupsargikaroga* (Communicable disease) in *Nidanasthana*. Viral conjunctivitis spreads through hand-to-eye contact by hands or objects that are contaminated with the infectious virus which is similar as mentioned by *Acharya Sushruta*.^{viii} Probable pathogenesis of viral conjunctivitis is mentioned below:



Netrabhishyanda (seasonal viral conjunctivitis) is *Sama-rogavastha* and is root cause for all eye diseases; hence, *Langhana*, *Aschyotana*, *Netra Parisheka*, *Bidalaka* with *Abhyantara Aushadha* has been selected here to treat viral conjunctivitis thoroughly.

According to *Acharya Sushruta*, *Netrabhishyanda* is a *Sarvagata Vedhya Sadhya* disease, *Rakta-dushti* is a key factor in the occurrence of *Rakta-vataja netrabhishyanda*, also known as seasonal epidemic viral conjunctivitis. So for its treatment, *Rasa-Raktapachaka Aushadha* has been chosen. This treatment works through *Tikta-Kashaya Rasa* and *Sheeta Veerya*, providing *Ropana*, *Rakta prasadaka*, *Shothahara*, *Kledahara*, as well as anti-inflammatory and anti-infective effects.

Chakradutta has recommended *Langhana* as the primary treatment for 5 days to address the *Sama Avastha* of *Netra-Abhishyanda*. For the *Langhana karma*, the patient is advised to consume light foods such as *Mudga yusha*, Dal-Rice, *Khichdi* and vegetables like bottle gourd, sponge gourd, ridge gourd, bitter gourd, pointed gourd and *Koshna jala*, for 3 to 5 days based on the severity of symptoms. *Langhana* aids in reducing inflammation through *Ama Pachana* and mitigates *Dosha Dushti* in the initial stages, thereby preventing the disease from progressing to a more severe state.

The drugs administered through *Kriyakalpa* help rectify locally accumulated *Doshas*. *Netra Parisheka*, *Aschyotana* and *Bidalaka* are recommended for addressing the *Sama-avastha* of *Roga*.^{ix} *Aschyotana* is the first line of treatment in the initial inflammatory stage of the eye diseases. *Netra-parisheka* is indicated in the severe condition of the infective-inflammatory eye disease. In this case series severe eyelid swelling and severe haemorrhagic conjunctivitis has also been observed in patients so *Bidalaka* and *Netra-parisheka* has been also selected for the local treatment.

Aschyotana – 10 to 12 drops repeatedly [six times per day] reduces redness, discharge of viral conjunctivitis.

Bidalaka, through eyelid skin promotes tissue absorption of drugs alleviating symptoms of conjunctivitis and also decreases eyelid swelling.

Netra-parisheka, using a *Shruta-sheeta jala* increases tissue contact time which helps in more absorption of drug through which relieves sign and symptoms of *Netrabhishyanda* faster.

Drugs used in *Aschyotana*, *Bidalaka*, *Netra-parisheka* like *Triphala*, *Yashtimadhu*, *Punarnava*, *Lodhra*, *Rasanjana churna* are having *Chakshushya*, *Kledahara*, *Shothahara*, *Ama Pachaka*, *Rakta Prasadaka*, *Vrana Ropaka* as well as anti-inflammatory and anti-infective properties which helps in pacification of viral conjunctivitis.

Most of the drugs of *Guduchyadi Kwatha*^x are having *Tikta rasa*, *Laghu guna*, *Amapachaka*, *Shothahara* properties which are beneficial for the treatment of *Netrabhishyanda*.

Sudarshana Ghanavati^{xi} possesses *Ama-Pachana*, *Rasa-Rakta prasadana*, *Kledahara* properties which helps to break the pathogenesis of *Netrabhishyanda*.

Kaishor Guggulu^{xii}, acts as *Vata shamaka* and *Rakta prasadaka*; particularly given to the patients experiencing eye pain.

In this case series of seasonal epidemic viral conjunctivitis, patients got relief in maximum 7 to 8 days without any further complication like viral keratoconjunctivitis; which proves that *Ayurveda* treatment works in acute and severe condition also in short period of time if proper treatment protocol has been followed according to classics.

Conclusion

The *Netrabhishyanda* is a prime cause of other eye diseases and leads to various complications.^{xiii} Viral conjunctivitis can be correlated with *Rakta-Vataja Netrabhishyanda* on the basis of similarities in signs and symptoms. The combination of *Langhana*, *Aschyotana*, *Bidalaka*, *Netra-parisheka*, along with internal medicines and adherence to *Pathya-Apathya*, provides complete relief to the patient within 5 to 7 days. This treatment protocol can be adopted for seasonal epidemic viral conjunctivitis, effectively curing the patient.

References

ⁱ Khurana A. K. – Comprehensive Ophthalmology 8th Edition, Jaypee brothers medical publishers, Reprint 2022, Chapter 12 – Diseases of Conjunctiva, page 244

ⁱⁱ Rohan Bir Singh, Lingjia Liu, Sonia Anchouche, Ann Yung, Sharad K. Mittal, Tomas Blanco, Thomas H. Dohlman, Jia Yin, Reza Dana, Ocular redness – I: Etiology, pathogenesis, and assessment of conjunctival hyperemia, *The Ocular Surface*, Volume 21, July 2021, Pages 134-144, ISSN 1542-0124 (<https://www.sciencedirect.com/science/article/pii/S1542012421000422>)

ⁱⁱⁱ Brad Bowling – Kanski's Clinical Ophthalmology – A Systemic approach 8th Edition, Elsevier, Reprint 2016, Chapter 5 – Conjunctiva, Page - 143

Azari AA, Barney NP. Conjunctivitis: a systematic review of diagnosis and treatment. JAMA. 2013 Oct 23;310(16):1721-9.

^{iv} Usher P, Keefe J, Crock C, Chan E. Appropriate prescribing for viral conjunctivitis. Aust Fam Physician. 2014 Nov;43(11):748-9.

^v Acharya Charaka – Charaka Samhita, Ayurveda Dipika's Ayushi Hindi Commentray edited by Vd. Harish Chandra Singh Kushwaha, Chaukhambha Orientalia, Varanasi, Reprint 2016, Vimanasthana 3/6

^{vi} Acharya Sushruta – Sushruta Samhita with the Nibandha sangraha Commentary of Sri Dalhanacharya and the Nyayachandrika Panjika of Sri Gayadasacharya on Nidanasthana commentary, edited by Vaidya Jadavji Trikamji Acharya and Narayan Ram Acharya 'Kavyatirtha', Chaukhambha Sanskrit Sansthana, Varanasi, Reprint 2017, Uttarantra 6/9

^{vii} Acharya Sushruta – Sushruta Samhita with the Nibandha sangraha Commentary of Sri Dalhanacharya and the Nyayachandrika Panjika of Sri Gayadasacharya on Nidanasthana commentary, edited by Vaidya Jadavji Trikamji Acharya and Narayan Ram Acharya 'Kavyatirtha', Chaukhambha Sanskrit Sansthana, Varanasi, Reprint 2017, Uttarantra 6/9

^{viii} Acharya Sushruta – Sushruta Samhita with the Nibandha sangraha Commentary of Sri Dalhanacharya and the Nyayachandrika Panjika of Sri Gayadasacharya on Nidanasthana commentary, edited by Vaidya Jadavji Trikamji Acharya and Narayan Ram Acharya 'Kavyatirtha', Chaukhambha Sanskrit Sansthana, Varanasi, Reprint 2017, Nidanasthana 5/33-34

^{ix} Acharya Sushruta – Sushruta Samhita with the Nibandha sangraha Commentary of Sri Dalhanacharya and the Nyayachandrika Panjika of Sri Gayadasacharya on Nidanasthana commentary, edited by Vaidya Jadavji Trikamji Acharya and Narayan Ram Acharya 'Kavyatirtha', Chaukhambha Sanskrit Sansthana, Varanasi, Reprint 2017, Uttarantra 18/44

^x Acharya Sharangadhara – Sharangadhara Samhita, edited by Dr. Brahmanand Tripathi 'Dipika' Hindi commentary, Chaukhambha Surbharti Prakashan – Varanasi, Reprint 2017, Madhyamakhandha 2/148

^{xi} Acharya Sharangadhara – Sharangadhara Samhita, edited by Dr. Brahmanand Tripathi 'Dipika' Hindi commentary, Chaukhambha Surbharti Prakashan – Varanasi, Reprint 2017, Madhyamakhandha 6/27-37

^{xii} Acharya Sharangadhara – Sharangadhara Samhita, edited by Dr. Brahmanand Tripathi 'Dipika' Hindi commentary, Chaukhambha Surbharti Prakashan – Varanasi, Reprint 2017, Madhyamakhandha 7/70-81

^{xiii} Acharya Sushruta – Sushruta Samhita with the Nibandha sangraha Commentary of Sri Dalhanacharya and the Nyayachandrika Panjika of Sri Gayadasacharya on Nidanasthana commentary, edited by Vaidya Jadavji Trikamji Acharya and Narayan Ram Acharya 'Kavyatirtha', Chaukhambha Sanskrit Sansthana, Varanasi, Reprint 2017, Uttarantra 6/5