

EFFECT OF AYURVEDIC MANAGEMENT ON *KSHATA SHUKRA* (ULCERATIVE KERATITIS): A RARE CASE REPORT

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ABSTRACT

Kshata Shukra (ulcerative keratitis) is a sight threatening corneal infection and is one of the most common causes of irreversible blindness. A 54 year old male patient came to the outpatient department with complaints of congestion, discharge, sensitivity to light (photophobia), blurred vision in left eye two days. Patient had a foreign body injury on left eye before 5 to 6 days. Patient went an ophthalmologist and was given an ointment and eye drops, patient used it for two days but was not willing to take the modern treatment and so he came for finding an Ayurvedic solution to it. He underwent with internal medicine, *Jalaukavcharana* (leech therapy), *Snehapana* (internal oleation), *Virechana* (purgation), *Nasya* (errhine therapy), *Anjana* (collyrium) and *Tarpana* (eye rejuvenation). He got complete relief in all sign and symptoms. After treatment nebular opacity over inferior cornea was present. His visual acuity was hand movement before treatment and was improved to 6/12 after treatment of six months. Hence, the rare case report demonstrates significant improvement in *Kshata Shukra* (ulcerative keratitis) with Ayurvedic management.

KEYWORDS: *Kshata Shukra*, Ulcerative Keratitis, Leech therapy, *Anjana*, Ayurveda

INTRODUCTION

In Ayurveda, Acharya Sushruta and Acharya Vagbhatta has described *Svrana Shukra* / *Kshata Shukra* under the heading *Krishnagata Roga* (corneal disease). If *Krishna Mandala* (cornea) looks like that it is immersed in water (loses transparency or become edematous), pierced by needle, corneal ulcer with copious warm discharge from the eye associated with severe pain then it is called *Savrana Shukra*^[1]. On the basis of this it can be interpreted that basically there are four symptoms i.e. loss of transparency, ulceration of cornea, copious discharge, severe pain. Acharya Vagbhatta described

Kshata Shukra, which indicates to be of traumatic origin. Acharya has added *Toda* (pricking sensation), *Raga* (conjunctival congestion), *Pakwajambunibhama* (severe congestion).^[2] On the basis of sign and symptoms it can be correlated to Ulcerative Keratitis. Keratitis is an acute or chronic inflammation of cornea which is a sight threatening condition and is one of the most common cause of irreversible blindness. The last option to treat the condition after medicine is surgical intervention and lastly, amniotic transplantation and keratoplasty. In this case report, an old man developed

Kshata Shukra (ulcerative keratitis) as a result of foreign body injury. As patient was not willing for allopathic treatment and so he opted for Ayurvedic management.

CASE

A 54 year old male patient, labour by profession visited Shalaky Tantra (Eye) Outpatient Department on 4/10/2020 with chief complaints of congestion, discharge, sensitivity to light (photophobia), blurred vision in left eye since 2 days. Patient had a foreign body injury on left eye before 5 to 6 days. Patient went to an ophthalmologist and was given an ointment and eye drops, patient used it for two days but was not willing to take the modern treatment and so he came for finding an Ayurvedic solution to it.

CLINICAL FINDINGS

The patient was afebrile. Pulse was 76 beats/min. Blood pressure was 134/86 mmHg. No abnormality was noticed in the functioning of respiratory, circulatory and digestive systems.

DIAGNOSTIC FOCUS & ASSESSMENT

Patients vision was checked and best corrected visual acuity was hand movement in left eye and 6/9 with +1.00DS in right eye. On Slit lamp examination, infiltrates were seen over anterior and posterior stroma and epithelium. On F-staining, epithelial defect was observed. Corneal scraping was done and culture was sterile.

Dashvidha pareeksha (tenfold examination)

The *Shareera Prakriti* (nature of body) patient was *Vata Kaphaja*. *Vikriti* (morbidness) was *Pitta Kaphaja*. *Satwa* (psyche), *Sara* (excellence of tissues), *Samhanana* (compactness of organs), *Ahara Shakti* (digestive power), *Vyayama Shakti* (capacity of exercise), *Satmaya* (suitability)

and *Pramana* (body proportion) of the patient were of *Madhyama* (average) level.

Sroto pareeksha(examination of body channels): *Rasavaha* (nutrition channels in eyes) and *Raktvaha srotas* (blood circulating channels) were involved in the current manifestation.

THERAPAUTIC INTERVENTIONS

Pure Ayurvedic management was adopted to manage the case as patient was not willing to take modern drugs. Firstly, he was treated with *Nimbadi Kashaya*^[3] twice a day in 10 ml dose. *Kaishore Gugglu*^[4] 3 tablets thrice a day (1500 mg one time). At the same time, *Mukkadi Vidalaka*^[5] followed by *Utpaladi Netra Seka*.^[6] After 10 days patient felt better with no pain but congestion, discharge and ulcer was present. Three sittings of *Jalaukavcharana*^[7] (blood letting) was done at the interval of seven days. Congestion and discharge was completely absent but corneal opacity present with visual acuity was F.C.1/2 meter. After this *Snehapana* (oleation) was done with *Panchatikta Ghrita* for seven days. *Virechana* (purgation) with *Trivrita Avleha* was done followed by *Sansarjana Krama* of seven days. *Nasya* with *Anutaila*^[8] was done for 7 days. After that *Anjana* with *Jatimukulaadi varti*^[9] was done for eight days. After that *Tarpana* with *Vidaryadi Ghrita*^[10] (7 sittings) and *Anjana* with *Chandrodaya Varti*^[11] (six sittings) (for *Lekhana* purpose) was done for next three months was done. Along with this patient was advised to take *Vidaryadi Ghrita* internally for three months in dose of 10 ml with milk. The order of treatments and its results are tabulated below.

FOLLOW UP AND OUTCOME

After treatment of 5 months 20 days patient was considerably cured. Patients visual acuity was examined and was improved to

6/12 (left eye). No discharge and congestion was present at the end of the treatment. Corneal opacity was improved to nebular opacity present only at inferior cornea. Visual acuity was 6/12 with correction +1.50 DS (left eye); +1.00 DS 6/9 (right eye). Follow-up of the patient was done at the regular interval of one month for next 6 months but no any complaint was done by the patient during the period.

DISCUSSION

The case was diagnosed with *Kshata Shukra* and Ayurveda treatment was planned considering the symptoms. Patient was explained about the prognosis of disease as patient was having visual acuity only hand movement, deeply seated and congested, which are the symptoms of *Varjaneeya Savrana Shukra*.

Nimbadi Kashaya and Kaishore Gugglu:

The classical indications i.e. Intense phase of *Raga* (congestion), *Ashru* (hyper lacrimation), *Gharsha* (foreign body sensation), *Daha* (burning sensation), *Toda-Bheda* (pricking cutting pain), *Paka* (discharge), *Shopha* (Inflammation/ swelling /chemosis), *Kandu* (itching) and *Vedana* (pain) are the indicative symptoms of *Amavstha* of *Netra Roga*. Here the disease started due to *Agantuja nidana* (foreign body injury), but as time passed there was vitiation of *Pitta* and *Kapha Dosha* for that reason *Nimbadi kashaya* and *Kaishore Gugglu* was given. All the ingredients of *Nimbadi kashaya* are of mainly *Katu*, *Tikta* and *Kashaya Ras*, *Katu Vipaka*, alleviates *Pitta* and *Kapha Dosha*. This *Dosha* pacifies *Kapha Dosha* due to its *Ruksha* and *Tikshna Guna*. It pacifies *Pitta* by its *Vairechnika* property. *Kaishore Gugglu* is having Anti-allergic, Anti-bacterial, Analgesic, Anti-inflammatory and Blood-purifying

properties. All the ingredients of *Kaishore Gugglu* help to remove accumulated *Pitta* and balances *Kapha*. Also it acts as a detoxifying agent, hence removes toxins from the blood. It possess *Anabhishyandi*, *Srotoshodhaka*, *Rakshoghna* properties because of which blood circulation increases and inflammation, congestion, pain is reduced.

Mukkadi Vidalaka:

As *Vidalaka* is applied over the skin. It rapidly penetrates the intact skin. This helps in easy and fast absorption of drugs thus causing efficient results. The absorption of drug is directly proportional to the vascularity of the applied surface. As *Mukkadi Vidalaka* was applied warm it increases the vascularity of the area hence increasing the absorption. It is useful in acute eye conditions or in *Amavstha* of the *Netra Rogas*. It gives soothing effect to the eyes and hence reduces congestion and discharge.

Utpaladi Seka:

In *Sushruta Samhita*, while describing the management of *Vrana Shotha* (localized inflammation with impending suppuration), *Seka* is mentioned among sixty measures (*Shashti Upkrama*) for the same as an external cleansing (*Bahir-parimarjana*) of *Doshas* in inflammation (*Shotha*). The procedure is considered to be *Aptarpana* (*Langhana*) in nature; hence is a suitable procedure in *Amavstha* of *Netra Roga* for *Pachana* as well as *Bahir-parimarjana* of *Dosha*. *Seka* (irrigation) come in contact with *Bhrajaka Pitta*; is absorbed and modifies local tissue pathology. Here the ingredients used in *Utpaladi seka* possess *Pitta Shamaka* properties and hence helpful in this acute condition by reducing congestion, pain and discharge

Jalaukavcharana:

Leeches have been known to possess biologically active compounds in their secretions, especially in their saliva. *Jalaukavcharana* is a unique specialized therapy in Ayurveda, explained under *Raktamokshana* which is helpful in correcting the vitiated *Rakta* and *Pitta Dosha*.^[12] *Jalaukavcharana* provides beneficial effects in inflammatory conditions of eyes. When leeches are applied over the site they inject biologically active substances through saliva which has the properties like anti-inflammatory that helps in arresting the inflammation, vasodilators increases the blood flow at the affected area that reduced the congestion, anaesthetic substance reduced pain during sucking of blood and hyaluronidase facilitates the penetration and diffusion of pharmacological active substances into deeper tissue. Here *Jalaukavcharana* was used because of its easy applicability, painlessness and devoid of complications. Here after *Jalaukavcharana* pain, congestion was reduced significantly.

Virechana:

Snehapana with *Panchatikta Ghrita*^[13] was done followed by *Virechana* with *Trivrita Avleha*.^[14] Visual acuity of the patient will be regained when transparency of cornea will recover. As scar is a fibrosed area it should be soften to remove it and *Snehana* is a best method to soften it with its *Snigdha guna*. *Panchatikta ghrita* possess *Pittaraktashamaka* property with *Ropana* and *Rasayana* property and so was used here.

Nasya with Anu Taila:

After *Kayashodhana*, next step is to attain *Urdhvajatrugata shodhana*, which was done by *Nasya* with *Anutaila*. *Anutaila* possess the property of *Vatapitta shamana*.

Anjana with Jatimukuladi Varti and Chandrodaya Varti:

Here for *Prasadana anjana*, *Jatimukuladi varti* was used for seven days. *Prasadana anjana* was necessity as three sittings of *Jalaukavcharana* was done and *Raktamokshana* causes *Vata prakopa* and increases *Ruksha guna* in the eye. After one sitting of *Tarpana*, *Lekhana anjana* was done with *Chandrodaya varti* was used. So, the scar can be cured and transparency of cornea can be regained.

Vidaryadi Ghrita for Tarpana:

To strengthen the eye and to improve the health of cornea seven sittings of *Tarpana* was done with *Vidaryadi Ghrita*. It possess *Brihaniya*, *Balya*, *Rasayana*, *Jeevaniya*, *Vathara Karma*. *Vidaryadi ghrita* having a property of *Madhura rasa* and *Madhura vipaka* causes *Pitta rakta shamana*. It also has *Sroto Shodhaka* property which helps in clearance of channels and improves the circulation of *Dhatu*s and this indirectly helps in nourishment of *Dhatu*s. Absorption and delivery to the target is crucial in obtaining the maximum benefit which is facilitated by its lipophilic nature. It helps and accelerates the bioavailability of the nutrients. So, it here it has been also chosen for internal intake.

Pathya-Apathya advised were to wear goggles direct wind exposure i.e. to avoid wind exposure, avoid direct sun exposure, avoid *Tikshna*, *Guru*, *Abhishyandi Ahara*.

CONCLUSION

The rare case report demonstrates significant improvement in *Kshata Shukra* with Ayurvedic management. Treatment used here is effective, easily approachable. As this is single case study, it may open a new path to clinicians and researchers for exploring

the treatment of *Kshata Shukra* (ulcerative Keratitis).

Declaration of patient consent

Authors certify that they have obtained patient consent form, where the patient/ caregiver has given his/her consent for reporting the case along with the images and

other clinical information in the journal. The patient/caregiver understands that his/her name and initials will not be published and due efforts will be made to conceal his/her identity, but anonymity cannot be guaranteed.

		
Fig.01 (04/10/2020) Congestion, discharge, corneal ulcer. VA: HM (left eye)	Fig.02 (01/11/2020) Macular corneal opacity. VA F.C. ½ mtr.(left eye)	Fig.03 (23/03/2021) Nebular corneal opacity with VA 6/12 (left eye)

Table 1: Treatment and its result:

Treatment period	Internal medications given	Treatment done	Result observed (Left eye)
4/10/2020 To 13/10/2020	<i>Nimbadi Kashaya</i> 10 ml BD with 30 ml luke warm water. <i>Kaishore Gugglu</i> 3 tablets (1500mg) TDS	<i>Mukkadi Vidalaka</i> followed by <i>Utpaladi</i> <i>Seka</i>	Patient felt better with no pain. Congestion, discharge and ulcer present.
15/10/2020	-same-	1 st sitting of <i>Jalaukavcharana</i>	Reduction in congestion and discharge.
23/10/2020	-same-	2 nd sitting of <i>Jalaukavcharana</i>	
1/11/2020	-same-	3 rd sitting of <i>Jalaukavcharana</i>	Congestion and discharge absent. Corneal opacity present. VA F.C.1/2 meter
8/11/2020 to 14/11/2020	<i>Snehapana</i> with <i>Panchatikta Ghrita</i>		
15/11/2020 to 17/11/2020		<i>Abhyanga</i> and <i>Swedana</i>	

18/11/2020		<i>Virechana with Trivrita Avleha</i>	
19/11/2020 to 25/11/2020	<i>Sansarjana Krama</i>	-	Macular corneal opacity VA 6/24
26/11/2020 to 01/12/2020		<i>Nasya with Anutaila</i>	
02/12/2020 to 08/12/2020		<i>Anjana with Jateemukuladi varti</i>	Macular corneal opacity present.(Fig.02)
10/12/2020 to 16/12/2020		<i>Tarpana with Vidaryadi Ghrita</i>	
18/12/2020 to 24/12/2020	Alternate week sittings till 22/03/2021 for 7 days. (6 sittings)	<i>Anjana with Chandrodaya Varti</i>	
26/12/2020 to 01/01/2021	Alternate week sittings till 22/03/2021 for 7 days. (6 sittings)	<i>Tarpana with Vidaryadi Ghrita</i>	Nebular opacity over inferior cornea. Pupillary area-clear (On 23/03/2021) VA 6/12

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