

**BIDALAKA, A FAST ACTING AND QUICK RELIVING OCULAR THERAPEUTIC OF
AYURVEDA- A CASE STUDY****Dr. Santosh Kumar Shaw*¹ and Dr. Sujathamma K.²**¹PG Scholar, Dept. of PG Studies in Shalakya Tantra, SKAMCH & RC, Bangalore, Karnataka, India.²Professor & HOD, Dept. of PG Studies in Shalakya Tantra, SKAMCH & RC, Bangalore, Karnataka, India.***Corresponding Author: Dr. Santosh Kumar Shaw**

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ABSTRACT

Preseptal cellulitis is a common and potentially serious infection of the subcutaneous tissues anterior to the orbital septum. If left untreated, the infection can cross the septal barrier and spread to the orbit, resulting in a cellulitis that may have sight-threatening sequelae, including, cavernous sinus thrombosis and meningitis. Physical examination reveals eyelid oedema in the absence of orbital signs such as gaze restriction and proptosis. Preseptal tissues may become infected as a result of trauma including insect bites or primary bacteremia. The most commonly isolated organisms are Staphylococcus aureus, Streptococcus pneumoniae, Streptococcus pyogenes Haemophilus influenza and Moraxella catarrhalis. Bidalaka, an Ayurvedic ocular therapeutic (Kriyakalpa) which consists of applying medicated paste over the eyelids, was selected to treat Preseptal cellulitis as it is indicated in inflammatory condition of eyes. A 19 years old female patient diagnosed as preseptal cellulitis on clinical presentation was advised bidalaka with triphala powder & yastimadhu powder for five days. The signs & symptoms got completely subsided. The results proved to be significant on the basis of clinical assessment.

KEYWORDS: Preseptal cellulitis, orbital cellulitis, eyelid oedema, Bidalaka, Kriyakalpa.**INTRODUCTION**

Preseptal cellulitis refers to infection of the subcutaneous tissues anterior to the orbital septum.^[1,15] Children and young adults are the most frequently affected.^[2] If not treated appropriately, it can lead to sight-threatening complications such as visual loss, orbital cellulitis, cavernous sinus thrombosis & meningitis.^[3]

The organisms invade the preseptal tissues as a result of skin laceration, insect bite, eyelid operations, local infections such as acute hordeolum or acute dacryocystitis. Infection may also occur by haematogenous spread from remote infection of the middle ear or upper respiratory tract.^[1]

It is characterized by painful acute periorbital swelling, erythema & hyperaemia of the lids with normal ocular movements, conjunctiva & visual acuity, may be associated with fever and Proptosis will be absent.^[1]

Treatment includes systemic antibiotics to control the infection. Analgesics and anti-inflammatory drugs help in reducing pain & swelling. Warm compress provides a soothing effect.^[1,4]

As per Ayurvedic principles, the clinical symptoms like lid swelling can be correlated with vartma sophā, pain with vedāna and inflammation with rāga, which is

manifested in preseptal cellulitis. These symptoms manifest due to the vitiation of tridosha^[5,6] including rakta which is mainly responsible for rāga-inflammation. Acharya Charaka and Acharya Vagabhata have indicated bidalaka in eye diseases with rāga, dāha, sophā, upadeha, asru.^[7,8] Hence bidalaka is line of treatment for preseptal cellulitis as per Ayurveda.

AIM AND OBJECTIVES

1. To manage preseptal cellulitis with Ayurvedic ocular therapeutics.
2. To evaluate the anti-inflammatory & analgesic effects of drugs which are used for bidalaka.

MATERIALS AND METHODS

Case history: A 19 years old female patient came to outpatient department (Registration number E12842) of Shalakya tantra, SKAMCH & RC, Vijaynagar, Bengaluru, Karnataka on 17th April 2017, for severe swelling right eyelid with mild to moderate pain. She had sudden onset of these symptoms. On ocular examination visual acuity of both eyes was 6/6, eye ball movement was normal, conjunctiva was not congested, sclera, cornea, Iris, pupil and anterior chamber were found to be normal.

On the basis of clinical signs & symptoms patient was diagnosed as preseptal cellulitis and advised bidalaka

with triphala powder & yastimadhu powder for 5 days.

OBSERVATION AND RESULT



After 3 days of treatment, it was observed that eyelid swelling markedly reduced and pain completely subsided. On completion of treatment of 5 days, it was observed that eyelid swelling reduced completely which was clearly seen in the photograph.

DISCUSSION

Preseptal cellulitis is a serious infection of the subcutaneous tissues anterior to the orbital septum.^[1] If not treated appropriately; it can lead to sight-threatening complications such as visual loss, orbital cellulitis, cavernous sinus thrombosis & meningitis.^[3] Hence these complications become a matter of concern. As per contemporary science, the line of treatment of this clinical condition is systemic antibiotics, analgesics, anti-inflammatory and warm compress to control the infection, reduce pain, subside inflammation and provide soothing effect.^[1]

As per Ayurvedic view, the clinical symptoms like vartma soph ~ lid swelling, vedana ~ pain and raga ~ inflammation are manifested due to vitiation of vata, pitta & kapha dosha^[5,6] including rakta which is mainly responsible for raga ~ inflammation. Acharya Charaka and Acharya Vagabhata have mentioned bidalaka in clinical condition like soph, vedana and raga. Hence bidalaka is one of the line of treatment for preseptal cellulitis so the patient advised bidalaka with triphala powder and yastimadhu powder for 5 days. These drugs have anti-infective, analgesic & anti-inflammatory properties and bidalaka provides quick absorption of the drugs along with soothing effect, so it becomes very useful to overcome this clinical condition. The probable mode of action of medicines as follows,

Triphala- Its consists of three drugs i.e. Amalaki, Haritaki & Vibhitaki in equal proportion.

Amalaki (*Embelica officinalis* Linn) is *Tridoshahara dravya* which helps in reducing vedana, vartma soph &

raga. It has linolic acid, phyllembin, ellagic acid, terchebin, indole acetic acid & phyllemblic acid which have Pharmacological actions like anti-microbial & anti-inflammatory therefore it helpful in controlling the infection & inflammation.^[9,10,11]

Haritaki (*Terminalia chebula* Retz) is *Tridoshahara dravya* which helps in reducing vedana vartma soph & raga. It has Anthraquinone glycoside, chebulinic acid, chebulagic acid & tannic acid which have Pharmacological actions like Anti-microbial & anti-bacterial therefore it helpful in controlling the infection.^[9,10,11]

Vibhitaki (*Terminalia bellerica* Roxb) is *Kapha-pittahara dravya* which helps in reducing vartma soph & raga. It has Chebulagic acid, gallic acid, fructose, galactose & mannitol which has Pharmacological actions like anti-bacterial therefore it helpful in controlling the infection.^[9,10,11]

Yastimadhu (*Glycyrrhiza glabra* Linn) is *Vata-pittashamaka* dravya which helps in reducing vedana & raga. It has Glycyrrhizine, Prenylated Baurone, Licoagrone, Quercetin, Kaempferol & Isoflavanoids which have Pharmacological actions like anti-inflammatory therefore it helpful in subsiding inflammation.^[9,10,11]

Bidalaka^[12,13]

Bidalaka is one of the ocular therapeutic of Ayurveda in which drugs are made into paste form and applied to the outer surface of the eyelids leaving the eye lashes. The paste is left on site until it starts drying (for 20-25 minutes).

Medicine applied on the outer surface of lids is absorbed by the skin to a greater extent reaching to subcutaneous tissues and reduces the local temperature there by relieves inflammation, imparting soothing effect and

relieving pain. Since tissue contact time is more, bidalaka helps in large absorption of drugs and bioavailability will be enhanced. Since the drugs have anti-infective, analgesic & anti-inflammatory properties, patient could get quick relief from the symptoms.

The Ayurvedic scientists Acharya Charaka (200 BC) and Acharya Vagabhata (600 AD) have mentioned about this therapy. They were aware of drug delivery through skin of eyelids. The skin of eye lids is extremely thin, subcutaneous fat is very sparse and stratum corneum layer of skin which acts as barrier is a single layer in eye lids, so absorption of drugs through skin of eye lids will be very fast. In Bidalaka the paste of drugs is left for 20 minutes which provides more tissue contact time that accelerates the absorption.

The advantages of transcutaneous drug delivery are avoidance of the gastrointestinal tract and hepatic first-pass biotransformation and metabolism, control of absorption, avoidance of local irritation and toxicity, and improved patient compliance.^[14]

CONCLUSION

Preseptal cellulitis is serious infection of the subcutaneous tissues having severe complications and to avoid these complications an early diagnosis and effective treatment is required, which can arrest the inflammation from spreading to orbit which otherwise leads to blindness if left untreated. Clinical assessment is very essential through history taking.

Bidalaka with the selected drugs provide anti-infective, analgesics, anti-inflammatory and soothing effect which is similar to the line of management of contemporary science.

The tissue contact time and bioavailability of the drugs used in procedure Bidalaka is more, so large absorption of drugs takes place therefore it provides quick relief in subsiding the symptoms.

Many recent published research papers mentioned transdermal drug absorption through the lid as a new technique of drugs delivery^[16] which was told by Ayurvedic scientist long back.

Transdermal drug regimens are safe and effective.^[14]

The study showed significant relief in the patient's symptom therefore bidalaka is one of the line of management for Preseptal cellulitis as per Ayurvedic science.

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