

# *Jalukavacharan (Leech) in Anjananamika (External Hordeolum)*

Amol Kadu



### Abstract:

External Hordeolum (Stye) is the most common diseases of the eye which is routinely reported. In such case, hot fomentation, NSAIDs, eye drops of antibiotics are usually preferred. The present case have been treated with leech therapy where leech was applied upon the inflamed part of eye lid only for once. Although in the management of stye, *Raktamokashan* is indicated but no reports has been published earlier in such conditions. After leech application, severe pain subsided at the inflamed area instantly. It proposes a good and cost effective approach to minimize the pain instantly with *Raktamokshana*.

**Key words:** *Ayurveda, Stye, Anjananamika, Jalukavacharan*

### Introduction:

Hordeolum is one of the most common disease of the eye, and there are various causative factors related to the disease. Incidence rates for hordeolum is not available because most cases are not reported[1]. Hordeola tend to occur in younger people, but are not limited to any age, gender, or racial group [2][3]. It is a common, painful, inflammation of the eyelid margin that is caused by bacterial (typically staphylococcal) infection. The infection affects oil glands of the eyelid and can be internal or external[4]. An external hordeolum which is also called as stye is suppurative inflammation of eye lash follicles and its associated sebaceous glands of zeis or apocrine sweat gland of Moll form on the outside of the lids whereas internal hordeolum are infections of the meibomian sebaceous gland lining the inside of the eyelids. Most hordeola are external and whereas internal hordeolum is not often found. [5]

A clinical feature of external hordeolum includes acute pain associated with swelling of lid, mild watering, foreign body sensation and photophobia. Its signs are divided into two stages, stage of cellulitis which is characterized by localized firm, red, tender swelling at the lid margin associated with marked swelling followed by stage of abscess formation characterized by visible pus point on the lid margin in relation to the affected cillia. Symptoms of internal hordeolum are similar to hordeolum externum, except that pain is more intense due to swelling being embedded deeply in the dense fibrous tissue. Sign on examination, hordeolum internum can be differentiated from hordeolum externum by the fact that lid margin and that pus usually points on the tarsal conjunctiva and not on the root of cillia.[6][7] On the basis of its sign and symptoms, Hordeolum can be correlated with the condition of *Anjananamika (Vartmagat vyadhi)* described in *Ayurveda*. According *Acharya sushruta*, it is due to *rakta dosha prakopa* (vitiation of

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**Corresponding Author:**

Amol Kadu, Assistant Professor,  
Dept. Of Agadtantra,  
MGACH&RC, Salod (H)  
Wardha, Maharashtra.

**Email:**

dramolkaduayu@gmail.com

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blood) characterized by soft (*Mrudwi*), slightly painful (*Mandaruja*), burning (*daha*), pricking (*Todavati*) and copper coloured (*Tamra*) small boil (*sukshma Pidika*) in the lid.[8] In addition to this, *Acharya vagbhata* describes that, it is a *pidika* fixed to the eyelid (*sthira*) resembling green gram (*mudga matra*) in shape and size situated in the middle or at the end of eye lid (*madhye va vartmnoante*) with pain (*rugvati*) and itching sensation (*kandusha*).[9]

In many cases, the inflamed lesions are self resolving, drains spontaneously and resolves untreated; however, the infection can spread to other ocular glands or tissues and recurrences are common. If unresolved, acute internal hordeolum can become chronic or develop into a chalazion (cyst). [10] It is common practice to use one or several interventions for the treatment of hordeolum, including warm compresses applied at home, local antibiotic drops, systemic antibiotics or steroids, anti-inflammatory and analgesics, lid scrubs available over-the-counter, lid massages and others including incision and drainage. If stye burst, care must be taken to cleanse the wound to prevent re-infection. [11] Ayurvedic intervention includes *swedana* (hot compress), *Nishpidan* (pressing and rubbing), *bhedana* (puncturing of the *Pidika*), *Pratisaran* (application of medicated paste of various medicines)[12]

A case of a 29-year-old male patient of external hordeolum successfully managed in 3 days according to Ayurvedic principles by adopting *Jalukavacharan*.

### Case Report

A 29 year old male patient presented with complaints of swelling and redness over the right eyelid margin at the base of eyelash near inner canthus with severe throbbing pain which hampered routine activities and mild itching since 5 days.

### On examination:

On local examination of right eye, localized, hard, red tender swelling at the eyelid margin was observed. Sclera and cornea appearing normal. Vitals were stable with no significant abnormality of the nervous system, cardio-vascular system and respiratory system. Per abdomen examination was normal.

### Observations:

The patient was photographed during the leech treatment [Figure 1],



Fig-1: Showing the application of *Jaluka* to medial canthus of right eye

### Result:

In the present case only one leech was applied to the affected side. Just after removing the leech, the severe throbbing pain was reduced instantly. Though swelling and reddening was not reduced at that time but gradually resolved on next 2 day. On third day, swelling, reddening, pain and scar mark of leech bite was also diminished. The patient was advised to avoid exposure to light and dust to wear goggle.

### Discussion

External hordeolum is very common disease occurring in young adults, but may occur at any age, especially in debilitated persons. This is a suppurative inflammation of zeis gland. In the early stages, the gland becomes swollen, hard, and painful and usually the whole edge of lid is oedematous, later on an abscess forms which generally points near the base of one of the cilia. Styes often occur in crops, or may alternate with boils on the neck, carbuncles or acne, usually indicating a deficient resistance to staphylococci. Antibiotics orally and the use of hot compresses are advocated for few days. When the abscess points it may often be evacuated by pulling out the affected lash alternatively, it can be incised with small knife. If the infection spreads to form preseptal cellulitis, oral antibiotics may be required. [4][5][6][7]

External hordeolum is very well correlated with eye disease *Anjananamika* in Ayurveda characterized by green gram like *Pidika* having pain, swelling, redness, itching etc. There are many treatment modalities implicated for the *Anjananamika* (Stye) such as hot compresses (*Swedana*), *Bhedana* (incision by small knife), *Anjana* (Colloryim), *Raktamokshana* (Blood letting) etc.[13] *Pidika* which is formed in *Anjananamika* in early stage is like *Ama Shopha* (pre suppurative stage) gets suppurated after 3-4 days and converts it into abscess (Suppurated stage of stye). In this stage *Acharya* Sushruta advocated *Bhedan Chikitsa* (puncturing of *Pidika* by instrument)[14].

It is very well explained by *Acharya* Vagbhata that, Abscess/ulcers (*Vrana*) usually develops after putrefaction (Pus formation) which is preceded by swelling hence it (swelling) should be treated first, preventing the formation of pus, by all efforts such as application of cold poultices (*Sheeta Lepa*), bathing the part with cold decoctions of drugs (*Sheeta Seka*), blood letting (*Raktamokshana*), purificatory therapies (*Sanshodhana*) etc[15].

*Jalukavacharan* (blood letting by leech) is indicated in various diseases including eye disorders. [16] *Sushruta* mentioned, *Bhedan Chikitsa* (puncturing of *Pidika*) in *Anjananamika* when it is in suppurated state. While, *Yogaratanakar* mentioned bloodletting by leech when it is not in suppurated state i.e. stage of *Amavastha*. As earlier stated that, if *Jalukavacharan* is done in *Anjananamika* (*Amavastha* of *Shopha*), there is no need to do *Bhedan Chikitsa* because due to blood letting further suppurated stage will be arrested and abscess will not form containing pus. Due to letting out of impure blood, the redness and pain subsides instantaneously which is reflected in this case also.[17] Though the treatment for *Anjananamika* is *Bhedan Chikitsa* but for *Bhedan* it is advised to wait for its *Pakwawastha* (Suppuration stage) and to be punctured by instrument.

Leech therapy in case of external hordeolum is not performed as eye is very delicate part no publish report stating the application of leech in such condition. Ayurvedic fundamentals propose leech application in conditions where *Rakta* derangement occurs. *Rakta* is predominant *Dosha* responsible for

occurrence of *Anjananamika* (external hordeolum). A single leech treatment in this case was found very effective in not only reducing pain but also subsided the swelling and reddening endorses Ayurvedic view point toward this pathology and proposes a novel approach to apply leech in such conditions. Leech therapy is found convenient, least expensive and safe comparing to all other alternative options recommended for treating the external hordeolum (Stye). This observation further confirmed that, leech therapy which is mentioned as a treatment in *Anjananamika* by *Yogaratanakar* as a possible method of intervention in cases of stye.

#### Conclusion:

Stye (External hordeolum) is common disease manifested as lid swelling. *Anjananamika* described in Ayurveda correlates with external hordeolum on the basis of symptomatology and the management. *Jalukavacharan* (Leech application) is a cost-effective and an easily accessible treatment that can be made use of in managing stye successfully. Application of leech in external hordeolum (Stye) may expand its indications and at the same time a difficult-to-be-treated condition may be provided with an easy treatment option.

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