

REVIEW OF PAKSHMAKOPA VYADHI THROUGH AYURVEDIC AND MODERN VIEW

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ABSTRACT

Ayurveda, a science of life where many diseases have been explained with prognosis, internal medication and surgical intervention which is gradually achieved by western medicine following the same aid with advanced technology. *Pakshmakopa* is one of the *Netragata Vyadhi* (*vartmagat vyadhi*) where the vitiated *Doshas* causes inward turning of eyelashes causes damage to both *Shukla* and *Krushna Mandal*. *Acharya Sushruta* pioneer of Indian surgery has mentioned detail signs, symptoms, prognosis, treatment (*Chaturvidha Chikitsa*) i.e. *Shashtra*, *Kshar*, *Agni*, *Bheshaj*, which is similar to entropion. Entropion is the condition in which your eyelid turn inward so that your eyelashes rub against the eye surface causes irritation and discomfort. So here the systemic analysis is made to correlate the description of *Pakshmakopa Vyadhi* and the finest skill in the ancient technique of surgery with present ophthalmic techniques in conventional medicine explained in Entropion.

KEYWORDS: *Pakshmakopa*, entropion, *Shashtra*, *Agni*, *Kshar*, *Bheshaj*.

INTRODUCTION

Among the *Dnyanendriyas Acharyas* have given prime importance to *Chakshurendriya* and quoted as “*Survendriyanam Nayanam Pradhanam.*” *Sushruta* the authority of *Shalakyatantra* has paid much more attention on the diseases of the *Netra* in particular. *Acharya Sushruta*, in classics explains details of *Pakshmakopa vyadhi* in *Vartmagat Rogas* is being studied from days of his era to till date and this denotes the magnitude of disease. According to the modern science it is the condition in which there is inward rotation of lid margin along with the eyelashes i.e. entropion. *Sushruta* have explained, the *chaturvidh chikitsa* i.e. *Shashtra*, *Kshar*,

Agni, Bheshaj which can be correlate with entropion treatment according to modern medicine. Entropion is usually caused by genetic factors. It is produced by disparity in length and tone between skin muscle and posterior tarsoconjunctival lamina of eyelid.^[1] So this study will help to evaluate the importance of treatment protocol given by the *Acharyas* in *Pakshmakopa* with respect to entropion in modern science.

MODERN REVIEW

Definition

Rolling inward of lid margin is called entropion and is produced by a disparity in length and tone between the anterior skin muscle, and posterior tarsoconjunctival lamina of the eyelid.^[2]

PATHOPHYSIOLOGY

The pathophysiology of entropion depend on the type of entropion seen and is discussed below.

EPIDEMIOLOGY

Mortality or Morbidity

The primary morbidity is ocular surface irritation. Corneal abrasions can occur.³

Sex

Entropion has no sexual predilection.^[4]

Age

Although all ages can affected, entropion is seen primarily in older adults.⁵

CLINICAL FEATURES

The symptoms are those of disturbances of the stability of the tear film and induced trachiasis

TYPES

1. INVOLUTIONAL^[6]

Definition-It constitute the general instability of the lid structures with age. A weakness of posterior retractors of the lid occurs together with a laxity of medial and lateral canthal ligaments. This is accompanied by a loss of posterior support, as orbital fat leads to endohthalmos.

Pathophysiology- Preseptal orbicularis muscle overrides pre tarsal orbicularis, therefore

rotated forward and margin of the lid onto the globe.

Treatment-Principle of surgery

- Reattachment of retractors to the tarsal plate.
- Shortening of the horizontal width of the tarsal plate
- Forming a cicatrix between pretarsal and preseptal part of orbicularis.

Aim of the surgery- To restore the vertical and horizontal tautness of the lid. A simple suturing of lower lid with double arm 5-0 vicryl chromic catgut may improve effaciousness.

Bick procedure modified by Rich- An inverted house shaped lid shortening is performed Tucking of inferior lid retractor-(**Jones, Reech and Wobig**)-In cases of severe entropion, tucking of the inferior lid retractors is advisable.

2. CICIATRICAL ENTROPION^[7]

Definition-It is caused by cicatricial contraction of palpebral conjunctiva, resulting in shortening of the inner tarsoconjunctival lamina of the lid and an inversion of the lid margin.

Causes-Trachoma, trauma, chemical burns, Stevens Johnsons syndrome and Ocular cicatricial pemphigoid.

Treatment-Principle of surgery

- Lengthening of posterior lid lamina to restore the normal direction of lashes.
- Tarsal rotation

Mild to moderate entropion in the presence of thickened tarsus is best treated by **Wedge resection** of the tarsus with **Fox modification** of the **streatfield snellen's** procedure.

For more severe entropion or one where the tarsus is not thickened is a modification of **Burrow entropion** or Tarsal fracture.

3. SPASTIC ENTROPION^[8]

Generally occurs in response to ocular irritation such as inflammation trauma, and is due to spasm of orbicularis oculi muscle in the presence of degeneration of palpebral connective tissue separating the orbicularis muscle fibres.

PATOPHYSIOLOGY

The inferior lid aponeurosis normally maintain the orbicularis muscle in such position that it presses against the lower tarsus and prevent an entropion by contraction of the capsular palpebral head of the inferior rectus. If the aponeurosis degenerates, strong contraction of the circularly arranged orbicularis tend to approximate the lid margin and turn them inward.

Age related degeneration of the tarsal muscle of Muller additionally fail to anchor the lid margin of tarsal plate to bony orbit. This allows orbicularis muscle to ride up in front of the tarsal plate towards the lid margin, rolling it in. There is also horizontal lid laxity present in this cases.

TREATMENT

Principle of treatment

- The precipitating reason for the spastic entropion needs to be identified and treated.
- Lubricants and antibiotic eye drops used for surface disorders and lid inflammation.

In elderly person, temporary relief may be obtained after everting the lid, by pulling it out with the strip of adhesive plaster.

If entropion persists, Botulinium toxin may be injected into pretarsal orbicularis to help weaken it and prevent overriding.

AIM OF SURGERY

Producing a ridge of fibrous tissue in orbicularis muscle and thus preventing the fibres from sliding in vertical direction.

A horizontal incision is made 4 mm below the lid margin through all the lid structures. Two double armed sutures are placed through tarsal plate in the inferior lip of the wound, entering from conjunctival surface. These sutures are inserted under the skin of the upper lip of the wound to exit just below the lid margin. The skin incision is closed, the clamp released and the deep suture tied.

4. CONGENITAL ENTROPION^[9]

This is a rare condition due to dysgenesis of lower lid retractors or developmental abnormality of the tarsal plate, causing lid margin to turn onto the globe.

TREATMENT

Treatment should address the cause.

DIFFERENTIAL DIAGNOSIS

- Symblepheron
- Ankyloblepheron

AYURVEDIC REVIEW

Pakshmamandal

The word *Pakshma* refers to eyelashes. They are situated in the lid margins called *pakshashaya*^[10] *Pakshma* is a form of *kesa* (hair) and considered as a *Updhatu* of *Majja*.^[11]

The normal direction is always outside, where as if altered inner structure will be badly hurted as in *Pakshmakopa*.

Pakshmakopa

Vatpradhan Tridoshas invading the follicle of eyelashes, make them sharp and pointed as well as rough and turned inside. The rubbing of then is highly painful. The patient is relieved by repeated epilation of eyelashes, but he will always fear for blowing wind, sun and heat.

All *Acharyas* explained *Pakshmakopa* in *Vartmagata Vyadhi*.

SYNONYMS

Upapakshmamala Parival

Similar disease explained by *Acharya Vagbhat* by *Pakshmoparodh*.^[12]

HETU

All *hetus* related to *Netraroga* vitiate *Vatpradahan Doshas*.

Dosha- *Acharya sushruta* and *Vagbhat* explained *vatpradahan tridoshas* (*Dosha Pakshmashayagata*). *Acharya madhav* explains only *vatdosha*. (*Prachalitani vatena*)^[13]

SAMPRAPTI

Dosha pakshmashayagata-when vitiated *doshas* enters the roots of eyelashes.^[14] Changes the direction of eyelashes inward to touch the eyeball and create severe swelling. This will damage the *Shukla* and *Krushna Mandal*. *Acharya videha* has also traced the origin of

Pakshmakopa to entry of Doshas to lid margin.

Lakshna

Sr. No.	<i>Sushruta</i> ^[15]	<i>Madhav nidan</i> ^[16]	<i>Vagbhat</i> ^[17]	Modern symptoms
1	<i>Tikshnagrani kharanich</i>	<i>Vishanti hi</i>	<ul style="list-style-type: none"> <i>Sankoch vartmano jayate tatha</i> <i>kharata</i> <i>Kantakairev tikshnagre</i> 	Make the eyelashes pointed and rough
2	<i>Nirvartayanti pakshmani</i>	-	<i>Antar mukhatwam ch romanam.</i>	Inward turning of eyelashes
3	<i>Tairghrushtm cha akshi duyate</i>	<i>Ghrushyanti akshi muhusthani</i>	<i>Ghrushtm tairkshi shuyate</i>	It rubs the ocular surface
4	<i>Udhrutairhe udhtairh Shanti</i>		<i>Alphah shanti udhrute</i>	Relief after removal of eyelashes
5	<i>Vata aatapanal dweshi</i>		<i>Ushyate ch aniladi</i>	Photophobia Avoid exposure to bowing air sun and heat as they are irritating
6			<i>Romanam anyani va punaha</i>	Extra growth of row of eyelashes
7		<i>Asite sitbhagech mul koshat patantyapi</i>		Damage to conjunctiva and cornea.

Saddhyasadhyatwa- Pakshmakopa is yapyā and parmdarun vyadhi.

CHIKITSA^[18]

Acharya Sushrut explained Chaturvidh Chikitsa in Pakshmakopa Vyadhi.

Purvakarma

Shodhana- snehan, swedan and vaman, virechan. If swelling of eyelid is there then shirovirechan nasya, kaval graha vaman and Raktvistran, lekhan.

Upvishtsya- Patient should sit in proper position.

Pradhan Karma- The position of excision is below the eyelid and 2/3rd above the upper lid. Suturing should be done with pony tail.

Paschat Karma- Apply ghee and honey over the wound and should be treated as per the Vrana karma.

Bandaging should be done in the Lalata area along with the sutures, sutures should be removed after healing of wound.

Agni and Kshar Karma

If the surgical treatment does not produce the desirable results then Agni karma or Kshar Karma should be employed at the same place.

Uppakshmala Chedan and Nirharan Vidhi-(Epilation In Distichiasis)

If all above procedures are unsuccessful, then extra line of eyelashes should be held by *Badisha yantra* and to be completely excised.

BHESHAJ

If all above does not produce desirable results then *virechana, aschyotan, dhuma, nasya lepa, anjana, snehan and raskriya* should be applied in this *yapya vyadhi* explained in *Abhishyand chikitsa*.

DISCUSSION

Pakshmakopa is a disease having exact similar entities to entropion explained in modern science with relatively medical and surgical treatment. Principle and aim of the *pakshmakopa* and entropion surgery is exactly same i.e. to remove horizontal lid laxity. That's why *yavamatra twaka chedan* in *Pakshmakopa* surgery and Wedge shaped tarsal resection and fracture is usually done in entropion which is approximately similar. As *dosha* concerned with change in shape, *vata* comes into play where even the modern ophthalmologist have accepted that the degeneration becomes more common with age. As the symptoms were explained by various *Acharyas* is exactly similar to the symptoms of entropion. Entropion is caused by various factors but mainly due to laxity of extra ocular muscle and lid retractors, occurs commonly in old age and it can be correlated to sign and symptoms of *vattedosha* which is predominantly occurs in *vardhakya*. Proper understanding of the characteristics feature of *Pakshmakopa* are diagnostically valuable because it reflects *Dosha* predominance and pathological change. Instruments and techniques used by the *Acharyas* in those days of *Pakshmakopa* surgery is still now being practiced by modern surgeries with advanced technology. Even though the advanced technologies are introduced in modern field of ophthalmology with regards to surgery, recurrence is still. The post-operative care in case of entropion is very much similar to *paschat karma* of *Pakshmakopa*.

CONCLUSION

In all *ayurvedic classics*, *Pakshmakopa* is described under *Vartmagata Vyadhi* i.e. *Yapya* and *Paramdaruna Vyadhi*. Above study reveals that sign and symptom of *Pakshmakopa Vyadhi*

is exactly similar to modern entropion. Pathophysiology of conventional and ciciatrical entropion is exactly similar to *Pakshmakopa Samprapti* Surgical technique of entropion surgery is approximately similar to *pakshmakopa i.e. yavamatra teak chedan* but nowadays done with advanced technique. Our *Acharyas* have described *Chaturvidh Chikitsa* with clinical feature and management of *Pakshmakopa* stimulates that of entropion in modern science *Ayurvedic Pakshmakopa* can be correlate with modern entropion as both shows the similaritis in literature. "Prevention is better than cure", Conjunctiva and cornea the most superficial layer of eyeball and hence ultimate care and precautionary measure should be taken to avoid its abrasion.

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