

# PTERYGIUM – A DEGENERATIVE CONDITION OF CONJUNCTIVA AND ITS CORRELATION WITH ARMA

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## ABSTRACT

Pterygium is a degenerative condition of conjunctiva. Conjunctival surface exposes to external environment so it is prone to various diseases. Degenerative conditions are one such example. Degeneration is a condition in which tissue loses its ability to work properly due to trauma or aging. Pterygium can be correlated with disease Arma. The prevalence rate of Pterygium varies widely from 2% to 29%, higher in tropics than temperate altitudes. Pterygium, usually affects geriatric group, with more incidence in men. It may be unilateral or bilateral usually affecting the nasal than the temporal side. Arma is one among the Sandhigata rogas as explained in our classics, is a chedana sadhya vyadhi. The methods adopted by our Acharyas in performing the Chedana karma are identical with the steps followed by the modern ophthalmologist even till date.

## KEYWORDS

Conjunctiva, Pterygium, Arma, Chedana .

## INTRODUCTION

Conjunctiva is a thin and translucent membrane which lines the anterior surface of sclera and posterior surface of eyelids. Pterygium is fibrovascular membrane extending either from outer or inner canthus towards cornea. Arma is one of the Shuklagata rogas explained by Maharshi Sushruta and Vagbhata. Clinical feature of Arma is mamsa vrudhi originating from kaninika sandhi, apang sandhi or from both towards the drushtimandala causing loss of vision. Arma can be correlated with the disease Pterygium mentioned in modern science which is a wing shaped fold of conjunctiva encroaching upon cornea from either side within the interpalpebral fissure(1). It is the common cause of Astigmatism that may ultimately lead to visual disturbances, foreign body sensation, redness, watering etc. According to Ayurvedic classics in some extent we may stop the growth of Arma by medication and can avoid considerable astigmatism and surgery. Pathologically it is a degenerative and hyperplastic condition of conjunctiva. Pterygium has its similarities with Arma based on its site of manifestations, clinical presentation and surgical method of management.

## Pterygium

The exact etiology of Pterygium is not known but it may be result of prolonged effect of environmental factors such as UV rays, dry heat, abundant dust and high wind(2).

**Symptoms (3)**

Foreign body sensation, irritation and grittiness, cosmetic intolerance, otherwise asymptomatic in early stages, blurred vision, diplopia.

It is an asymptomatic condition but sometimes it may cause foreign body sensation and when it gets inflamed causes redness, watering.

**Signs(4)**

1. Raised conjunctival mass within palpebral fissure, extending on cornea, white to pink in colour depending on vascularity.
2. In early stages there will be minimal corneal involvement, later changes to a thick opaque vascular growth extending to the visual axis.

**Parts (5)**

1. Head of Pterygium: It is Apical part present on the cornea.
2. Neck of Pterygium: It is constricted part present in the limbal area.
3. Body of Pterygium: This part is extending between limbus and the canthus on sclera.
4. Cap of Pterygium: Semilunar whitish infiltrate presents just in front of the head.

**Types of Pterygium (6)**

1. Progressive Pterygium - The Pterygium is thick, fleshy and vascular having cap at apex.
2. Regressive Pterygium - Here the Pterygium is thin, pale and non-progressing.

**Differential diagnosis ( 7)**

- 1.Pseudo-Pterygium
- 2.Pannus
- 3.Symblepharon.
- 4.Limbal dermoid.

**Diagnosis (8)**

Patients with Pterygium are diagnosed by slit lamp examination having typical limbal growth at location of 3 O' clock and 9 O' clock within palpebral fissure.

**Treatment**

Regressive Pterygium - No treatment is required.

Progressive Pterygium requires surgical excision if causing visual impairment, astigmatism, limitation of ocular movements and diplopia.

Simple excision - The head is cautiously separated from cornea and neck and body is dissected from sclera and conjunctiva. Total 3-4 mm of Pterygium is excised and the cut ends are sutured.

Surgery in recurrent Pterygium: -

Mucous membrane auto graft - If the bare area is more than 5mm from the limbus then conjunctival graft from superotemporal quadrant is reflected and sutured so that adhesion between this graft and bare sclera takes place and Pterygium cannot encroach upon cornea.

Mc-Reynolds's transposition method – The head of the Pterygium separated from the cornea and inserted below the conjunctiva at 6 O' clock position and sutured. Thus because of the changed direction it cannot encroach upon cornea.

## Arma

### Hetu (9)

Netraroga sannikrushta and viprakrushta hetu

### Samprapti (10)

Tridosh prakopa due to nidan sevan leading to urdhvagamana of doshas through siras .

Prakupit doshas take sthansanshrya in shukla mandala and causes vikruti in tvak, rakta and mamsa which results in Arma.

### Types of Arma (11)

- 1.Prastari Arma:- It is thin, broad, soft, reddish or bluish and growing progressively.
- 2.Shukla Arma:- It is uniform and slowly growing whitish growth.
- 3.Lohita Arma :- It is uniform mamsal vridhi which resembles to padma i.e. lotus.
- 4.Adhimamsa Arma:- It is soft , extended, thick and shyava varna mamsal vridhi.
- 5.Snayu Arma:- It is slowly progressing, muscular, whitish mamsal vridhi.

## Chikitsa

The classification of Arma should be done as lekhana sadhya and chedana sadhya.

### Indications of lekhana sadhya Arma (12)

Dadhinibha (looking like curd), neelam (bluish), raktam (reddish), dusaram (greyish), tanu (thin)

## Panchakarma:

Virechana and shiroviechna – (13)

Nasya karma with krishnadi yoga

### Other medications (14)

1. Krishnadi putapaka
2. Pippalyadi gutikanjana
3. Marichadi lepa
4. Pushpaakshadi rasakriya

### Shastra karmasadhya lakshana (15)

1. Very thick – charmabha.
2. Highly elevated – bahala.
3. Fleshy growth covered densely with fibrous tissues – snayu-mamsa avrita.
- 4.Encroaching on krishna mandal
- 5.Visible blood vessels.

### Shastra karma asadhya lakshana (16)

If Arma is already encroached on the drushtimandala, it is a sign of incurability and surgery should be avoided in such cases as Acharya Vagbhata clearly explains “drushti praptam tu varjayet”.

### Arma Chedana Vidhi (17)

#### Poorva karma

1. Shodhan karma i.e. snehapurvak vamana, virechana and shirovirechana must be done before Arma chedana.
2. Patient should be given Snigdha ahara
3. After that swastivachan i.e. offering of prayer.
4. Supine and head low position is given to the patient.
5. Swedana has to be given to diseased eye with a cotton dipped in lukewarm water.
6. Anjana with saindhava and bijpurak rasa.

#### Pradhana karma

1. Patient is asked to look laterally.
2. Wrinkled part of Arma should be lifted using badisha yantra.
3. After that it should be held with the help of muchundi yantra and elevated.
4. The Arma should be freed from all the sides with the help of tikshna mandalagra shastra and chedana of Arma should be done. In this process one fourth part of Arma must be remained to avoid excessive chedana.

#### Paschat karma

1. On first day after samyak Arma chedana

Pratisarana with madhu, trikatu and saindhava or only saindhava

After pratisarana dhavana with cold water and sechana with kosha ghrita must be done.

Patti bandhana i.e. bandaging of eye has to be done after applying kavalika with ghrita and madhu.

For head and soles lepa of shatadhouta ghrita with shita jala has to be applied.

2. On second day morning

Sechana with kosha yashtimadhusiddha ghrita on bandaged eye.

3. On third day,

Bandage should be removed and swedana should be given with warm palms or karanjabeeja siddha ksheera.

Aschyotana should be done with the kwatha of haridra, daru haridra, lodhra, patola yashtimadhu, palash pushpa and kuranta mixed with honey and bandaged for the next seven days.

After seven days bandage should be taken away and care must be taken i.e. direct sunlight exposure and viewing the luminous objects avoided.

## Management of complications

If there is shotha - Dhupan karma with shoth shamak aushadhi dravya and shiro virechana nasya.

If there is pain – Aschotana with karanjabija, amla and yashtimadhu siddha kwath.

If there is strav and araktata then siravedh raktamokshan and nasya.

If there is some remained part of Arma then it should be treated with Lekhanjanas.

## DISCUSSION

Pterygium is a disease having exact similar characteristics of Arma explained in Ayurvedic science with absolute medical and surgical treatment. As vata dosha concerned with degeneration, and there is vata vrudhi in old age where even the modern ophthalmologist have accepted that the degenerations concerned to conjunctiva becomes more common with age.

Among the five types of Arma, signs and symptoms of Prastari, Lohit Arma and Adhimamsaja Arma indicates the progressive phase of the disease, Shukla Arma and Snayu Arma indicates the phase where growth is almost stopped representing the regressive phase of the disease.

Instruments and techniques used by our Acharyas in those days in Arma chedana vidhi are still now being practiced by modern ophthalmic surgeons for pterygium excision. Badish Muchundi and Mandalagra, the instruments mentioned in Ayurvedic classics are similar to various Forceps and Surgical blades. Even though the advanced technologies are introduced in modern field of ophthalmology with regards to surgical removal, recurrence is still there.

The postoperative care in case of Pterygium is similar to pashchat karma of Arma. The drugs used to treat remaining part of Arma like triphala, haridra, guduchi, guggulu, pippali have anti-angiogenic properties which helps to stop the further growth of Arma thereby it avoids recurrence.

## CONCLUSION

Now a days Pterygium is a common problem. Surgical excision is the only satisfactory treatment which is indicated for cosmetic purpose and to avoid further complications such as cystic degeneration, infections etc. Pterygium can be correlated with Arma because of its similarities with site of occurrence, clinical features and surgical management. Lekhan anjana is the treatment mentioned in Ayurvedic classics for Arma which is in early stage and thin membrane. After surgical excision of Pterygium there are chances of recurrence, it alarms us better to prevent.

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