



Review Article

A COMPREHENSIVE AYURVEDIC REVIEW ON ARMA AND ITS MANAGEMENT

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ABSTRACT

Arma is a disease of *Shukla mandala*. In Ayurveda it has been described under *Shuklagta Sadhya Vyadhi*. This is a disease in which, a wing like triangular fibro-vascular layer or structure gradually encroaching towards the *Krisna Mandala* from either *Kaneenika* (Inner canthus) or *Apanga Sandhi* (outer canthus) of the eye. If this layer invades the cornea (*Krisna Mandala*) which is transparent in nature causes damage of the transparency of that part of cornea and thereby may cause disturbance in vision. On the basis of signs and symptoms described by the modern medical science, the disease 'Arma' can be correlated with Pterygium. This article gives a brief description about *Nidanpanchak* described in *Samhita* related to *Arma* in which *Nidan*, *Purvroop*, *Roopa*, and *Sampatti ghatak* described in detail. Along with *Nidanpanchak* detail description of types of *Arma*, *Sadhya-asadhyatv*, *Chikitsa vivechan*, *Updrav*, and *Pathya-pathya* mentioned in *Samhita*. The first and foremost method of treatment of *Arma* is *Chedana Karma*. However, in the initial stage it can be treated with *Lekhana Anjanas*. *Lekhan* and *Chedan* is the main line of treatment of *Arma*. This article also defines the surgical procedure of *Arma*.

INTRODUCTION

Arma^[1] is a disease of *Shukla Mandala*. It is a disease in which a wing like growth is gradually developing from either *Kaneenika Sandhi* (inner canthus) or *Apangasandhi* (outer canthus) or from both sides towards the *Krishna Mandala* (cornea). If this layer invades the *Krishna Mandala* which is transparent in nature it causes disturbance in the vision. It is a common problem encountered in *Shalakyā* practice. On the basis of signs and symptoms described in modern medical science, the disease 'Arma' can be correlated to pterygium. The word 'pterygium' is derived from the Greek word 'pterygion' which means a small wing of butterfly.

Pterygium is a triangular shaped growth consisting of bulbar conjunctival epithelium and hypertrophied sub-conjunctival connective tissue occurring medially and laterally in the palpebral fissure and encroaching on to the cornea^[2].

Pterygium is more commonly found in people residing tropical and subtropical area. Risk factor includes outdoor work, exposure to UV radiation, dark skin complexion, dry and dusty climate, genetic predisposition etc. Prevalence was higher in factory workers than in office workers, higher in rural areas than in the city and highest in fishermen. Due to the geographic location and climatic conditions pterygium is a common ocular disorder in India.

Arma is a type of *Mamsasvridhi* (muscle like growth) and according to *Mamsasvridhi* and appearance there are five types of *Arma* mentioned by *Acharya Sushruta*. All type of *Mamsavridhi* is *Kaphatmaka*, hence *Acharyas* have indicated *Lekhana*^[3] and *Chedana*^[4] as the mainstay of treatment. In modern parlance as well, surgical excision is the definitive treatment, though not devoid of complications and recurrence causing more spread in recurrence stage^[6]. In initial stage of *Arma*, where the growth is thin and confined to a small area limited to *Shukla Mandala*, use of *Lekhana Anjana* is indicated. *Anjanas* are mainly of having *Lekhana* properties which can gradually reduce the thickness of the membrane of pterygium and preventing the growth of *Arma* and also reduces the size. *Anjana karma* is a

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process in which specific medicaments are pasted over the marginal conjunctiva in a systematic way from *Kaneenaka Sandhi* to *Apanga* and vice versa. *Lekhana Anjana* is one among 3 types of *Anjana* described by *Aacharya Sushruta*^[7]. It scrape and expel the *Doshas* from *Netra*, *Vartma*, *Sira*, *Netra Kosha* and *Ashruvaha Srotas* through the mouth, nose and eye^[8]. Whereas when it is thick, fleshy, and extensive and encroaches the *Krishana Mandala* then excision is advised.

AIMS AND OBJECTIVES

To analyze the *Nidanpanchak*, *types* and aetio-pathogenesis of the *Arma*, to analyze the Ayurvedic therapeutical approach useful for the management of the disease.

MATERIALS AND METHODS

As the study is a review study, the available literature like the *Samhitas* and other books are searched for the disease and all the relevant content is considered and analyzed to get a comprehensive concept in the management of *Arma*.

Etymology

The term *Arma* is derived from the *Dhatu "Ru"* and *Manan Pratyaya* which is known as *Arman* means "*Gati Prapnayo*". It means a layer which always gradually growing forward. This is a disease in which, a wing like triangular fibro-vascular layer or structure gradually encroaching towards the *Krisna Mandala* from either *Kaneenika* (Inner canthus) or *Apanga Sandhi* (outer canthus) of the eye. If this layer invades the cornea which is transparent in nature causes damage of the transparency of that part of cornea and thereby may cause disturbance in vision.

Deperivation

Ri +Manan Pratyaya = Arman, which means it is always progressive in nature. So, the disease found its name due to its property of growing. The muscular growth which develops from *Kaninaka* or *Apaanga Sandhi* towards the *Krishna Mandala* is called *Arma*.

Definition

The muscular growth which develops from *Kaninaka* or *Apaanga Sandhi* towards the *Krishna Mandala* is called *Arma*.

Nidanpanchaka

Nidana/Etiology

In Ayurvedic texts no specific *Nidana* is mentioned for *Arma roga*, but general causative factors of eye diseases are given in elaborative manner and are to be taken as causative factors of *Arma* also. These include *Aharaj* (dietary), regimental, and *Viharaj* causes which are specifically *Achakshushya* and *Pittanusari*. *Doorekshanata* (distant gazing for long time), *Sukshma nireekshana that is Kriya-atiyoga* resulting in reduced blinking and expose ocular

surface more which is a predisposing factor of *Arma*, *Raja-dhoom nisevana*, *Abhighata* in form of thermal burns are the strongest risk factor for *Arma* causes degenerative changes in layer of sclera and conjunctiva due to increased ocular surface exposure in upgaze. *Vega vinigraha* and *Swpna viparayayta* is an outcome of modern occupational environment. *Ushanabhitaptaysa jala praveskata*, *Ati maithuna*, *Ritu viparayayata* and psychological factors like *Kopa*, *Klesha* etc. are prevalent in modern lifestyle. These *Nidanas* are either *Tridoshha prakopka* the disease too is of *Tridoshaj* in nature.

Purvaroop

Purva Roopa denotes the symptoms which manifest before the actual or main symptoms occur. *Acharya Sushruta* has mentioned little about the *Purva Roopa* of *Netra Rogas*. No reference is available regarding *Purva Roopa* of *Arma* in any texts but the *Samanya Purva Roopa* mentioned for *Netra Roga* can be considered here.

Roopa/Clinical features

Mamsa vridhhi (fleshy growth of conjunctival tissue) is the main clinical feature of *Arma* corresponds well with of pterygium. Along with *Samanya roopa* of *Netrarog*, *Gharsha* (foreign body sensation), *Avildarshana* (blurred vision), *Netrasrava* (Lacrimation), *Prakash Asahishnuta* (Photophobia), *Raga* (redness/congestion of conjunctiva) are some of the main the clinical features mentioned in both Ayurvedic and modern literature. Besides these features specific clinical features according to types of *Arma* mentioned in *Samhita*.

The five types of *Arma* are named as follows^[7,9]

1. *Prastari Arma*
2. *Shuklarma*
3. *Lohitarma* (*Shonitarma/Raktarma/Kshataj Arma*)
4. *Adhimansajarma* and
5. *Snayu Arma*

Prastari Arma (progressive pterygium)

It is a fibrovascular or glandular growth (*Mamsal Vridhhi*) which grows rapidly on *Shuklamandal*. The growth which is thin (*Tanu*), painless, elongated or wide (*Vistrita*), soft (*Mridu*), red in colour (*Rudhirprabha*) is called *Prastari Arma*.

According to *Vagbhata* the pathological lesion is caused due to the vitiation of all the *Doshas* along with *Rakta*. The onset and development of this type of *Arma* is rapid and painless. He says that the colour of the membrane is *Shyavalothitha*, which resembles to *Sushruta's* description of "*Rudhira Prabha Shanelam*". But *Videha* mentioned the colour as *Shyava* or *Rakta*. He also says that this is due to *Sannipataja Dosh* *Vishama*.

Dosh Dushti- Tridoshaj
Sadhyasadhyata- Sadhya
Shuklarma

The muscular growth in *Shukla Mandala* which is uniform in size, flat (having even surface), soft, white in colour is called *Shuklarma*. The name itself denotes the color of the membrane. It is growing slowly and is due to the vitiation of *Kapha*. A crop of soft and whitish growths slowly extending over the entire length of the sclerotic coat is called *Shuklarma* (Su.U.4/5)

Dosh Dushti - Kapha
Sadhyasadhyata - Sadhya

Lohitarma (Shonitarma /Raktarma /Kshataj Arma)

The muscular growth on *Shuklamandala* which is uniform in size, soft or smooth, color resembles of red lotus is called *Lohita* or *Kshataj*, *Shonit* or *Raktaja Arma*. This is an additional soft fleshy growth from both the *Vartmasandhi* and canthus over the conjunctiva which is like the petals of a lotus flower. The thickness of the membrane in entire area is equal.

Dosh Dushti - Rakta

Vyavachedaka Nidana

Table 1: Showing the Vyavachedaka Nidana of Arma (References compiled from Bruhatryees)

S.No.	A.H.	Susruta	Colour	Dosha	Other symptoms
1	<i>Prastharyarma</i>	<i>Prastharyarma</i>	<i>Shyava- Lohitham</i> (Bluish red)	V, R, K, P	Thin Glandular swelling, sudden onset of Development
2	<i>Shuklarma</i>	<i>Shuklarma</i>	<i>Shuklavarna</i> (White)	K	Soft and whitish growth, slowly extending over the entire length of the sclerotic coat
3	<i>Shonitarma</i>	<i>Kshatajarma</i> or <i>Lohitarma</i>	<i>Rakthavarnam</i> (Red)	R	Soft fleshy growth, reddish colour like petals of the lotus flower.
4	<i>Adhimamsarma</i>	<i>Adhimamsarma</i>	<i>Shyavavarnam</i>	K, V	Soft, thick and dark brown membrane
5	<i>Snayuarma</i>	<i>Snayuarma</i>	<i>Panduravarnam</i>	K	Rich in blood vessels and nerves and rough growth of the membrane.

Samprapti/Pathophysiology

Vishista Samprapti of Arma

Neither *Videha* nor *Sushruta* described any particular pathogenesis of *Arma*. So we can predict that pathogenesis of *Arma* followed the general pathogenesis of the common eye diseases described by them.

For every disease, a particular place is essential for the manifestation of symptom. In case of *Arma* the vitated *Doshas* and *Dushyas* accumulates on the *Netra Sandhis* mainly *Kaneenika* and *Apanga*. After this a thin layer is seen which is gradually growing from *Kaneenika* or *Apanga Sandhi* towards the

Sadyasadhyata - Sadhya

Adhimansarma

Adhimansarma is a muscular growth of *Shuklamandala* resembling dried collection of blood, spread (*Pruthu*), thick and soft (*Mridu*) growth and colour resembles of liver i.e. grey colour. It may be extended upto most of the sclerotic area. The colour may be *syava* or dark brown.

Dosh Dushti- Tridoshaja
Sadhyasadhyata- Sadhya

Snayu Arma

The muscular growth of *Shuklamandala* which resembles tendon (*Snayu*), spread (*Vistruta*), more muscular (*Mamsal*), atrophied, rough and white colored is called *Snayu Arma*. *Sushruta* described it as a rough growth of *Pandura Varna* on the white fleshy coat. It is rich in blood vessels and nerves. According to *Nimi* the *Prastari Arma* gets dried and atrophied by *Vayu* and looks like *Snayu* or tendon.

Dosh Dushti- Tridosha
Sadhyasadhyata - Sadhya

Krishnamandala. In some cases the layer is growing from both the *Sandhis*. This growth may manifests in one or both eye.

This layer gradually grows forward by covering the *Shukla Mandala* and *Krishna Mandala*. Finally it invades the *Drishti Mandala*. Irritation, lacrimation, redness and slight pain are complained by the patient at the onset of *Arma* in *Shuklamandala*. This layer gradually ruins the external layer of the eye. When this layer is extended to pupillary area, it will cause impairment of vision by preventing the entrance of light rays in the eyeball.

The *Dosha* predominance of each case can be determined by different colour and symptoms of *Arma*. White colour denotes the predominance of *Kapha*, while red colour denotes for *Rakta* and *Pitta*. Bluish red is usually seen in predominance of all *Doshas*. *Acharya Sushruta* and *Acharya Vagbhata* both had described five varieties of *Arma*. A lot of resemblance is seen in all aspects, such as name, aetiology and description except in the name of *Shonitarma*. *Acharya Sushruta* named it as *Kshatajarma* or *Lohitarma*.

Samprapti Ghataka

Dosha: Tridosha

Dushya: Rasa, Rakta

Adhistana: Shukla Mandala

Vyakta Sthana: Shukla Mandala

Roga Marga: Madhyama

Samprapti of Sushkakshipaka



Sadhyasadhayata

Sadhyasadhayata gives a clear picture about the prognosis of a disease. It depends upon many factors like nature of disease, severity of disease, *Vaya*, *Prakruti*, *Bala* of patient etc. *Arma* is a *Chedan Sadhya Vyadhi*, but which is in initial stage having thin membrane and curd like colour, can be treated with *Netra Kriyakalpa* like *Anjana*.

Upadrava of Arma

In the classics, there is no reference available regarding the *Upadrava* of *Arma*. But if it encroach the cornea then it causes disturbance in visual axis and causes visual impairment.

Specific treatment (Chikitsa Vivechana) of Arma

"*Arma*" is a disease of *Shukla Bhaga* and had been mentioned as *Chedana Sadhya*. Detailed description of "*Chedana Karma*" for "*Arma*" has been given in 15th chapter of *Susruta Samhita*, *Uttartantra* named as "*Chedyaroga Pratishedham*". In this chapter we found that, *Chedana Karma* is not advised for all type of *Arma*. The *Arma* which is small, whitish, bluish

or reddish and thin should not be removed by *Chedana*. It should be treated as the treatment of *Shukra*. Treatment of *Shukra* is given in chapter-12 verse 28-31, where different type of *Lekhya Anjan* has been advised for *Shukra*.

The modern ophthalmologist does not treat the pterygium in initial stage. But in Ayurveda, *Arma* which is in initial stage having thin membrane and curd like colour, can be treated with *Netra Kriyakalpa* like *Anjana*. It is widely used in initial stage of *Arma* to prevent the speedy growth of the membrane. Likewise, it is also highly beneficial after the surgical treatment for prevention of relapse after surgery.

Anjanas are mainly of having *Lekhana* properties which can gradually reduce the thickness of the membrane of pterygium and preventing the growth of *Arma* and also reduces the size. The important *Anjanas* mentioned in our texts are different varieties of *Lekhana Anjanas* such as *Triphaladi Mashi*, *Samudra Phena Varthi*, *Chandrodaya Varthi* etc. In addition to these *Anjana*, also *Snehan*, *Swedan*, *Nasya*, *Rakthamokshan* and other internal medications are used for the treatment of *Arma*.

Treatment of different type of Arma

1. **Prastari Arma:** *Chedana* (excision), *Teekshna Lekhan Anjana* like *Chandrodaya Varti*, *Nayana Sukha Varti* etc.
2. **Shukla Arma:** *Chedana* (excision).
3. **Lohitarma (Shonitarma/Raktarma/Kshataj Arma):** *Chedana* (excision).
4. **Adhimansa Arma:** *Chedana* (excision).
5. **Snayu Arma:** *Chedana* (excision), *Lekhana Anjana* may be used in some cases.

Chedana Karma for Arma [8,10]

The word *Chedana* means to excise out. It is the first amongst the eight types of *Shastra Karma* mentioned by *Acharya Sushruta*. The *Chedana Karma* is advised mainly for *Bhagandar*, *Granthi* etc. *Mandlagra* and *Karpatra Sastra* are advised to be used for *Chedana* and *Lekhana Karma*. To increase the sharpness of the instruments a process "*Payna*" is described in which instruments are to be dipped in *Kshaar*, *Udak* and *Taila*. The first and foremost method of treatment of *Arma* is *Chedana Karma*. *Acharya Sushruta* and *Vagbhata* described elaborately the surgical procedure of *Arma*. They also explain the pre operative and post operative aspects. According to modern medicine, surgery is the only treatment of pterygium.

Indications for Arma Chedana

The *Arma* which is very thick or tough like leather or skin and covered with *Snayu* and *Mamsa* as well as with those which has touched the *Krishna Mandala* should be operated surgically. If the *Arma*

does not reach the centre of *Krishna Mandala* or visual axis, the vision is not hampered. But if it encroaches further vision will be impaired. In this condition excision of *Arma* can make the vision clear.

Pre-operative preparation (*Purva Karma*)

For any type of *Shashtra Karma* instituted in body, all body humours or *Doshas* should be brought in normal condition. For this the patient is treated with *Panch- Karma* therapy. After the *Pancha-Karma* therapy body becomes *Shudha* and the patient is considered as ready for *Chedana Karma*. One day before the *Pradhan Karma* or main surgery *Snehan* or *Snigdha Ahara* is given to the patient. Again, next day morning the patient is given *Snigdha Bhojan* and taken him on operation table. Powdered *Lavana* is applied in patient's effected eye over the *Arma* by *Anjana Vidhi* and the eye is cleaned with it. This causes *Prakshobha* or disturbance at the site of *Arma* and made it *Shithila* (loose). *Acharya Vagbhata* has advocated the surgery in lying posture and used *Amla Rasa* of lemon for disturbing the *Arma*.

Instruments Required

The instruments should be tempered by *Payna* before surgery. The main instruments required for the surgery are as follows:

1. *Badish Yantra*
2. *Muchundi Yantra*
3. Needles and
4. *Mandalagra Yantra*

Other requirements

1. Powder of *Lekhan Dravya*
2. Cotton balls
3. Gauze pieces
4. Bandage
5. Attendants etc.

Main *Shalya Karma* (*Pradhan Karma*)

After appropriate *Snehan* and *Swedan* when *Samyak Snigdha Lakshana* attained, the eyes should be fomented gently. The patient should be sited on a stool or chair. After fomentation a small quantity of rock salt or *Saindhav Lavan* which is pasted in juice of lemon i.e., *Beeja Pooraka* is put into the affected eye and massaged with the thumb for a while. Due to this massage the growth of the pterygium is separated from the attached conjunctiva. All types of head movements should be restricted during surgery. Strict instruction should be given to concentrate the eye to the opposite side of the growth. That means if pterygium extend from the medial canthus the patient should look towards the lateral canthus. Likewise, if the pterygium is in lateral canthus the patient should concentrate their eyes to the medial side. Now the fold of the membrane is taken or lifted by either *Badisa*

(hook), *Muchundi* (forcep) or by *Soochisootra* (thread). Now this free part which is held by *Muchundi* (forcep) is lifted high up and excised by sharp *Mandalagra Shastra* (scalpel). When it is freed from *Krishna Mandala* and *Shukla Mandala*, the *Arma* has to be cut from nasal side leaving its one-fourth of *Mamsal Bhag* on eye ball so that visual loss or any other complication does not occur. If inadequate excision of *Arma* is done recurrence occurs and it grows more rapidly than the original *Arma*. During the surgery, care should be taken to avoid any damage to *Kaneenika* and *Apanga Sandhis*, lacrimal ducts and its *Srotas* and also the various veins, arteries, nerves which are supplying to the eye ball. If any damage happens to *Kaneenika* and *Apanga Sandhis* or to lacrimal apparatus, *Nadivrana* may develop along with continuous lacrimation.

Paschat Karma or post operative procedure (*Pratisarana Vidhi*)

After proper excision of *Arma* dusting of *Lekhan Dravyas* is used on operated part. A paste is prepared from *Yavakshar*, *Saindhava Lavana* and *Trikatu Churna* and is applied at the operated part for *Pratisarana Karma*. Then *Swedan* is given to the part and *Vranabandha* (bandage) is done. *Sneha* is given according to the *Dosha*, *Ritu*, *Bala*, *Kala* etc. After three days rest, bandage is removed and *Hastasweda* is given on effected eye and *Sodhana* and *Ropana Chikitsa* is done accordingly. This can be repeated on fifth and seventh days. On these days *Seka* must be done with appropriate medicine. For *Seka*, *Kwatha* can be prepared with *Karanja Beeja*. This can be prepared in milk also. There are so many other *Kwatha* also prescribed for *Seka* according to the predominance of *Dosha*. In all the cases honey should be mixed with *Kwatha* before conducting the *Seka*. These are the main post operative measures.

Treatment of complications (*Arma Upadrava*)

The surgery can be considered as successful if the patient feels comfort without any pain. If any complications like pain or discomfort is felt due to excessive or less cutting of the membrane, it should be managed properly. It is mainly managed with *Sekas* and *Anjanas* which have the *Lekhana* and *Brimhana* properties. If there is pain in eye after the excision of *Arma*, a paste of *Karanja Beeja*, *Amla* and *Yashtimadhu*, *Siddha* by their own *Kashaya* and mixing with milk and then *Madhu Prakshepa* is used and this mixture is applied two times a day in the form of *Aschyotana*. These *Dravyas* are also used as *Lepa* on forehead. *Yashtimadhu*, *Kamalkeshar* and *Durva* are mixed to form a paste and adding milk and *Ghrta* to the paste. This mixture is applied on *Shiro Bhag* or *Netra* for the relief of pain after the excision of *Arma*.

Prevention of recurrence

If there is *Heena Chedana* i.e., *Arma-Shesha*, *Lekhan Dravyas* should be applied.

Features of well-Chedya Arma

When there is proper *Chedana* of *Arma* has been done following features are seen:

1. The eye ball appears to be clean and clear i.e., *Vishuddha Varna* of eye occurs.
2. The eye executes its movements normally. Eye becomes free in its movements and functions like *Sankocha*, *Prasara* and *Avalokana* can perform without any discomfort.
3. Complications like *Manya Shool*, *Netra Shool*, inflammation (*Shotha*), suppuration (*Paka*) etc does not occur.

Ati- Chedana

If *Arma* is excised out more than required amount bleeding, fistula formation, lacrimation etc can take place.

Heena- Chedana

If excision is less than the required amount then recurrence of *Arma* can take place. In such cases the residual part of *Arma* should be treated by *Lekhya Anjan*.

Shukra Chikitsa in Arma

Acharya Vagbhat has mentioned *Shukra Chikitsa* in *Arma*. The *Arma* which is short and coloured like that of curd/white/blue/red/grey and thin layered is treated like that of *Shukra*.

Those patients who are undergone surgery should apply appropriate *Anjanas* for at least one year for the prevention of further development of the *Arma*.

Aushadhi Yogas or Anjanas explained in different classics

- 1) *Shankhadi Anjana*
- 2) *Shilanjana*
- 3) *Shuklari Varti*
- 4) *Sitadi Anjana*
- 5) *Dakshnadi Anjana*
- 6) *Nayan Sukha Varti*
- 7) *Prabhavati Gutika*
- 8) *Gutikanjana*
- 9) *Guduchydi Anjana*
- 10) *Chandanadi Choornanjanana*
- 11) *Tamraddi Anjanam*
- 12) *Tutthadi Varti*
- 13) *Marichyadi Lepa*
- 14) *Manjisthadi Anjana*
- 15) *Manashil Anjana*

Pathya

Various dietary regimens, conducts, medicaments and the treatment modalities which are *Pathya* (helpful) for the patient suffering from *Netra Roga* are listed in the following table. Same *Pathyapathya* recommended for *Arma* also. These drugs should possess *Tikta Rasa*, *Laghu* and *Kapha Pittahara* property.

Table 2: Showing Pathya in Netraroga/Arma

Aharaja			
1.	<i>Shastika Shali</i>	2.	<i>Kadali</i>
3.	<i>Purana Shali</i>	4.	<i>Soorana</i>
5.	<i>Yava</i>	6.	<i>Divyambu</i>
7.	<i>Godhooma</i>	8.	<i>Lava Mamsa</i>
9.	<i>Mudga</i>	10.	<i>Mayura Mamsa</i>
11.	<i>Jangala Mamsa</i>	12.	<i>Vanakukkuta Mamsa</i>
13.	<i>Patola</i>	14.	<i>Koorma Mamsa</i>
15.	<i>Karavella</i>	16.	<i>Sthanya</i>

Upacharaja			
1.	<i>Langhana</i>	2.	<i>Pratisarana</i>
3.	<i>Ghrita Pana</i>	4.	<i>Ksheera Dhara</i>
5.	<i>Swedana</i>	6.	<i>Jala Gandoosha</i>
7.	<i>Upanaha</i>	8.	<i>Pada Abhyanga</i>
9.	<i>Virechana</i>	10.	<i>Avagundana</i>
11.	<i>Nasya</i>	12.	<i>Prapoorana</i>

13.	<i>Dhumapana</i>	14.	<i>Pindi</i>
15.	<i>Rakthamokshana</i>	16.	<i>Tarpana</i>
17.	<i>Lepa</i>	18.	<i>Putapaka</i>
19.	<i>Seka</i>	20.	<i>Vidalaka</i>
21.	<i>Aschyotana</i>	22.	<i>Avachoorana</i>
23.	<i>Anjana</i>	24.	<i>Udvartana</i>

Viharaja			
1.	<i>Atapatra Dharana</i>	2.	<i>Manahashati</i>
3.	<i>Padatrana Dharana</i>	4.	<i>Gurupooja</i>

Aushadhi Varga			
1.	<i>Purana Gritha</i>	19.	<i>Saindhava</i>
2.	<i>Triphala Ghrita</i>	20.	<i>Karpura</i>
3.	<i>Patola</i>	21.	<i>Bhringaraja</i>
4.	<i>Shigru</i>	22.	<i>Patola</i>
5.	<i>Draksha</i>	23.	<i>Jeevanthi</i>
6.	<i>Lodra</i>	24.	<i>Matsyaakshi</i>
7.	<i>Karavellaka</i>	25.	<i>Nava Moolaka</i>
8.	<i>Triphala</i>	26.	<i>Shatavari</i>
9.	<i>Punarnava</i>	27.	<i>Madhu</i>
10.	<i>Kakamachi</i>	28.	<i>Mridhveeka</i>
11.	<i>Kumari</i>	29.	<i>Saindhava Lavana</i>
12.	<i>Yastimadhu</i>	30.	<i>Chavya</i>
13.	<i>Sita</i>	31.	<i>Karkotaka</i>
14.	<i>Vartaka</i>	32.	<i>Meghanada</i>
15.	<i>Dattura</i>	33.	<i>Peya</i>
16.	<i>Kulattha Yoosha</i>	34.	<i>Vilepi</i>
17.	<i>Dadhima</i>	35.	<i>Lashuna</i>
18.	<i>Chandana</i>	36.	<i>Kulaththa Peya</i>

Apathya

Dietary regimens, medicaments and the treatment procedures which are harmful for the patient suffering from *Arma* or *Netra Roga* are termed as *Apathya*. These will have *Amla*, *Lavana*, *Katu Rasa*, *Teekshna*, *Ushna*, *Guru*, *Vidahi*, *Vistambhakara Guna*.

Specific *Apathya* explained in *Chikitsa Manjari* for *Arma* is *Dadhi*, *Kadali Phala*, *Pridhuka*, *Pappad*, *Narikela*, *Panasa Beeja* etc.

Table 3: Apathya in Netra Roga / Arma.

Aharaja		Viharaja			
1	<i>Dadhi</i>	1	<i>Vegadharana</i>	16	<i>Maithuna</i>
2	<i>Madhookapushpa</i>	2	<i>Adhyashana</i>	17	<i>Sookshmekshana</i>
3	<i>Pinyaka</i>	3	<i>Krodha</i>	18	<i>Danta Vigharshana</i>
4	<i>Viroodha</i>	4	<i>Shoka</i>	19	<i>Nisha Bhojana</i>

5	<i>Kalinga</i>	5	<i>Rodana</i>	20	<i>Prajalpna</i>
6	<i>Matsya</i>	6	<i>Diva Swapna</i>	21	<i>Chardana</i>
7	<i>Sura</i>	7	<i>Ratri Jagarana</i>	22	<i>Rajo Sevana</i>
8	<i>Panasa</i>	8	<i>Atapa Sevana</i>	23	<i>Drik Swedana</i>
9	<i>Viruddha anna</i>	9	<i>Ambupana</i>	24	<i>Jala avagaha</i>
10	<i>Valloora</i>	10	<i>Teekshna Darshana</i>	25	<i>Bhasvra Darshana</i>
11	<i>Ajangala Mamsa</i>	11	<i>Sahasa</i>	26	<i>Tamboola Sevana</i>
12	<i>Dadhi</i>	12	<i>Snana</i>	27	<i>Grahana Darshana</i>
13	<i>Kantakari</i>	13	<i>Dhooma Sevana</i>	28	<i>Chalavastu Darshan</i>
14	<i>Phanita</i>	14	<i>Diva Swapna</i>	29	<i>Madhyahna Arkadarshana</i>
15	<i>Sarshapa Taila</i>	15	<i>Rodana</i>	30	<i>Ratri Jagarana</i>

Medical: According to morden literature treatment of *Arma*:

Medicinal treatment

A small pterygium with mild symptoms of irritation and redness can be managed with the use of different types of topical NSAIDS, preservative free lubricants, vasoconstrictors and a mild steroid such as medryson (1.0%) etc. Avoidance of smoke and dust filled environment can be helpful. To prevent progression, some authors have advocated the use of ultraviolet blocking spectacles.

Surgical techniques

Many techniques are explained for pterygium surgery. Some of them are mentioned below-

1. Bare sclera method
2. Avulsion
3. Trans fixation or transposition method
4. Direct repair
5. Graft rotation
6. Anti-metabolite mitomycin C (as adjuvant)
7. Rediation^{P23}, Strontium 90 (as adjuvant)
8. Amniotic membrane tissue grafting
9. Lamellar keratoplasty with antilogous graft and
10. Ocular surface transplantation techniques etc.

CONCLUSION

In contemporary science *Arma* can be correlated with Pterygium, as both of these conditions are diagnosed based on the character and type of growth. In *Samhita*, *Samanya nidan* of *Netrarogas* are responsible for the development of *Arma*. *Mamsavridhi* is the main clinical feature of *Arma* there are five types of *Arma* based on *Mamsavridhi* and appearance. All type of *Mamsavridhi* is *Kaphatmaka*, hence in initial stage *Arma* can be treated same as *Shukra* with *Netra Kriyakalpa* like *Anjana* to prevent the speedy growth of the membrane. Where the growth is thin and confined to a small area limited to *Shukla Mandala*, use of *Lekhana Anjana* is advised.

And it is highly beneficial after the surgical treatment for prevention of relapse after surgery. Whereas when it is thick, fleshy, and extensive and encroaches the *Krishana Mandala* then excision is advised. In modern parlance as well, surgical excision is the definitive treatment, though not devoid of complications and recurrence causing more spread in recurrence stage.

Arma is a common eye problem, found more commonly in population residing in tropical and subtropical area. Risk factors include outdoor work, exposure to UV radiation, dark skin complexion, dry and dusty polluted environment, genetic predisposition. Pterygium is a common ocular disorder in India because of the geographic location and climatic conditions.

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