

## ROLE OF CHANDRODYA VARTI IN THE PREVELENC OF RECURRENCE AFTER ARMA CHHEDNA

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### ABSTRACT

On evaluating the 76 *Netra Roga Arma* is described under *Shukla gatha Netra Roga*. *Arma* is a fibrous growth of various colours and thickness according to the *Dosha* involved. From the descriptin of *Arma* found in our holy texts, we can compare the *Arma*, with Preygiu of Modern Ophthalmology. *Chhedan* i.e excision of *arma* is the treatment described in our ancient text. But recurrence of pterygium after excision is such a great problem that there is a saying " Preygiu is a sleeping tiger,do not disturb it, otherwise effects can be displeasing".Our *Acharyas* had also faced the same problem, so they advocated the use of *Lekhya-Anjana* for *Arma-shesha*. *Chandrody Vrti*, a *Lekhya Anjana* was selected as the drug for checking the recurrence of pterygium after its excision as it is hypothesised that the *Lekhan Karam* of *Varti* will scrap out the *arma-shesha* if any thus checking its recurrence. The present study has been done on 18 patients of *Arma*. The patients were randomly divided into two groups. In Standard group: surgical excision was carried out without application of *Chandrody Varti* whereas in treated group, surgical excision was followed by application of *Chandrody Varti* twice daily for one month.

**KEYWORDS:** *Arma*, Pterygium, *Chandrody Varti*, *Lekhya Anjana*.

### INTRODUCTION

*Arma*<sup>[1]</sup> has been described as a disease of *Shukla Mandla*. "*Iryati Gachhati ithi Arma*"-which means it is progressive in nature,so the disease has found its name due to its property of growing.<sup>[2]</sup>

*Arma Roga* – Classification on Different Grounds.

- 1) *Utpatti Anusar*- *Arma* is a *Nij Roga*.
- 2) *Dosh Anusar* – The five type of *Arma* are-
  - i. *Shukla Arma* – *Kaphaj*
  - ii. *Shonit Arma* - *Raktaj*.
  - iii. *Prastari Arma* – *Tridoshaj*.
  - iv. *Adhimans Arma* – *Tridoshaj*.
  - v. *Snayu Arma* – *Tridoshaj*.<sup>[3]</sup>
- 3) *Aashraya Anusar* – *Arma* is a *Vyadhi* of *Shukla mandla*.
- 4) *Sadhyata Anusar* – *Arma* is a *Sadhya Vyadhi*.<sup>[4]</sup>
- 5) *Chikitsa Anusar* – It is *Shastrakritya (Chhedya)*.<sup>[5]</sup>

In texts specific etiology, *Purva-Rupa* and *Samprapti* has not been given for *Arma* so general disease profile is also applicable for this disease.

This disease also got its nomenclature as 'Pterygium' from greek word 'Pterygos' meaning a small wing and as the disease present itself in a classical wing like fashion due to its chronic extension toward the corneal apex, so the name pterygium itself is informative about its appearance.

"A pterygium is a triangular sheet of fibromuscular tissue which invades the cornea".

Pterygium<sup>[6]</sup> is a triangular shaped growth consisting of bulbar conjunctival epithelium and hypertrophied subconjunctival connective tissue, occurring medially and laterally in the palpebral fissure and encroaching onto the cornea.

Though *Arma* is a *Chhedan-Sadhya Roga*, *Acharya Sushruta* has mentioned use of *Lekhya-Anjana* to treat *Arma-Shesha*<sup>[7]</sup> i.e.to remove any remnants and to prevent its recurrence. *Lekhan* drugs possess *Katu*, *Kashya*, *Ushan*, *Ruksha*, *Laghu*, *Tikshan* properties. Though there are other drugs also which have been used for treatment of *Arma*, but *Chandrody Varti*<sup>[8]</sup> is taken as drug of choice because of following reasons-

- *Chandrodyia Varti* has been described as a drug of choice for treatment of *Arma*.
- *Lekhan* drugs are prescribed in treatment of *Arma* and *Chandrodyia Varti* is an established *Lekhan* Drug.
- The constituents of *Chandrodyia Varti* have been used in other *Lekhan* preparations as well.
- Easy to prepare and readily available drugs.

### AIMS AND OBJECTIVES

1. To study the prevalence of Pterygium in this area.
2. To see the effect of *Chandrodyia Varti* on recurrence of Pterygium.
3. To see the side effects/toxic effects of the drugs.
4. To see which type of *Arma* is more prevalent.

### MATERIALS AND METHODS

#### Selection of Patients

This clinical study was conducted on the out-door patients of *Netra Roga* OPD of *Shalakyia Tantra* of R.G.G.P.G.Ayu. College & Hospital Paprola. The patients were selected for the trial irrespective of their caste, creed, race and religion.

#### Inclusion Criteria

Patients diagnosed as suffering from *Arma* having no other local or any other major systemic disease were included in the trial.

#### Exclusion Criteria

- i. Patients not willing for trial.

### Pharmacological Aspect of the Drugs of *Chandrodyia Varti*

S No	Drug name	Rasa	Guna	Virya	Vipaka
1	<i>Shankh</i> <sup>[9]</sup>	<i>Katu</i>	<i>Ruksha, Tikshan, Laghu</i>	<i>Sheeta</i>	<i>Katu</i>
2	<i>Vibhitka</i> <sup>[10]</sup>	<i>Kashaya</i>	<i>Ruksha, Laghu</i>	<i>Ushan</i>	<i>Amla</i>
3	<i>Haritki</i> <sup>[11]</sup>	<i>Madhur, Amla, Katu, Kashaya, Tikta</i>	<i>Ruksha, Laghu</i>	<i>Ushan</i>	<i>Madhur</i>
4	<i>Manashila</i> <sup>[12]</sup>	<i>Lavan, Tikta</i>	<i>Snigdha, guru</i>	<i>Ushan</i>	<i>Katu</i>
5	<i>Pippli</i> <sup>[13]</sup>	<i>Katu, Tikta</i>	<i>Snigdha, Tikshan, Laghu</i>	<i>Unushansheeta</i>	<i>Madhur</i>
6	<i>Marich</i> <sup>[14]</sup>	<i>Katu, Tikta</i>	<i>Ruksha, Tikshan, Laghu</i>	<i>Ushan</i>	<i>Katu</i>
7	<i>Kushth</i> <sup>[15]</sup>	<i>Madhur, Katu, Tikta</i>	<i>Ruksha, Tikshan, Laghu</i>	<i>Ushan</i>	<i>Katu</i>
8	<i>Vach</i> <sup>[16]</sup>	<i>Madhur, Katu, Tikta, Kashaya</i>	<i>Ruksha, Tikshan, Laghu</i>	<i>Ushan</i>	<i>Katu</i>
9	Goat milk <sup>[17]</sup>	<i>Madhur, Kashaya</i>	<i>Snigdha</i>	<i>Sheeta</i>	<i>Madhur</i>

#### Method of preparation

The constituents No.1 to 8 all are taken in equal quantities. Their fine powder is made and triturated with goat's milk even times. Then it has been made in the form of *Varti* and dried in shadow.

#### GROUPING

The selected patients were randomly placed and studied under 2 groups:

**In standard Group:** Surgical excision was carried out without application of *Chandrodyia Varti*.

**In treated Group:** Surgical excision was followed by application of *Chandrodyia Varti* twice daily for one month.

- ii. Patient suffering from any other ocular disease of anterior segment.
- iii. Patients suffering from major systemic diseases like diabetes or hypertension.

### ASSESSMENT CRITERIA

Recurrence of *Arma* or Non- recurrence of *Arma* is the sole criteria for assessment, as the study is aimed only to see the recurrence in standard and treated group therefore.

Recurrence of *Arma* is given grade-1.

Non recurrence of *Arma* is given grade- 0.

### CRITERIA FOR OVER ALL ASSESSMENT

The patients in whom recurrence of *Arma* did not occur were considered cured and where recurrence occurred were considered not cured.

### DRUG REVIEW

#### *Chandrodyia Varti*

#### Constituents of *Chandrodyia Varti*

1. *Shankh*
2. *Vibhitka*
3. *Haritki*
4. *Mana-shila*
5. *Pippli*
6. *Marich*
7. *Kushth*
8. *Vach*
9. Goat milk

### DRUG DOSE, FORMULATION AND SCHEDULE

#### Drug

- *Chandrodyia Varti*.

#### Dose

- Application of *Chandrodyia Varti* twice daily for one month.

**Duration of Trial:** one month.

**Follow up:** Though the duration of trial was one month, but the patients were called for follow-up for two months to see recurrence of *Arma*.

## STATISTICAL ANALYSIS

The information regarding demographic data was given in percentage. The scoring of criteria of assessment was analysed statistically in terms of mean values of B.T. (Before Treatment), A.T. (After treatment), S.D.(Standard Deviation), and S.E.(Standard Error). The effect of therapy was assessed by applying students paired t' test for comparing the before treatment and after treatment scores of assessment criteria. The results obtained were considered highly significant for  $p < 0.001$  or  $< 0.01$ , significant for  $p < 0.05$  and insignificant for  $p > 0.05$ . For intergroup comparison unpaired t test was applied.

## OBSERVATION

In present study, most of the patients i.e. 72.22% were from age group 25-50 years. Maximum patients in this study i.e. 77.77% were females. 83.33% of the patients were Hindu. Majority of the patients were farmer i.e. 50%, followed by house-wives 22.22%. 100% of patients were residents of rural area. Maximum patients were illiterate i.e. 44.44% followed by 22.22% matriculate patients. 50% of patients were from middle economical class, 38.88% from lower class. Majority of the patients i.e. 88.88% were married. Maximum no of patients of present study i.e. 61.11% were on mixed dietary habits. 83.33% of patients were having no addiction, because most of the patients were female. 38.88% of patients gave family history of *Arma*. Maximum no of patients were of *Tikshan Jathragni* i.e. 38.88% followed by 22.22% patients of *Mand* and *Vishma jathragni*. *Prakriti* of maximum patients of present study i.e. 55.55% was *Kaph-Pittaj*, than of *Vat-pittaj* i.e. 33.33%. Maximum no patients i.e. 50% were having period of onset 0-1 year, 33.33% patients were having onset of pterygium before 1-2 years. 11.11% and 5.5% patients were having 2-3 year and 3-4 year onset period respectively. Maximum patients i.e. 61.11% of patients were having progressive pterygium and 38.88% patients were having stationary Pterygium. Maximum no of patients with progressive *Arma* were from 25-50 age group. Stationary *Arma* were also from same age group. Most of the patients were suffering from primary pterygium i.e. 88.88%. In this study maximum patients were having *Prastari* type *Arma* which is of progressive nature i.e. 33.33%. *Shukla Arma* 1(5.5%) and 1(5.5%) were progressive and stationary respectively. Among *Kshtaj Arma* 11.11% were progressive and 5.5% were stationary. 11.11% each were of progressive and stationary type among *Adhimansaj Arma* and in *Snayu* type all *Arma* were stationary type i.e. 16.66%. 61.11% patients were having *Arma* in Right eye, 22.22% in Left eye and 16.61% of patients were having *Arma* in both eyes. Maximum pterygium were of grade-3 i.e. 50%, 33.33% and 16.61% were 2 and 1 grade respectively. Maximum patients showed symptoms of itching i.e. 27.77%, 16.66% showed symptoms of watering. Both the symptoms were present in 55.55% of patients.

## EFFECT OF THERAPY

### Effect of *Chandrody Varti* on Recurrence of *Arma*

After excision of *Arma*, as whole of the tissue was excised out, the grade of *Arma* was. In first week and 2<sup>nd</sup> week grade remained zero in both the groups. In 4<sup>th</sup> week, *Arma* had recurred in 2 patients of standard group i.e. in 25% of patients and in none of the patients of treated group.

After 2 months, *Arma* recurred in two more patients of standard group i.e. rate of recurrence is 50%. Only one patient of treated group showed recurrence of *Arma* i.e. 11.11% of patients.

Rate of recurrence of *Arma* in Standard group - 50%.

Rate of recurrence of *Arma* in treated group - 11.11%.

Other than recurrence it was also observed that congestion at the site of wound after excision disappeared more early in treated group as compared to standard group where it remained for longer time.

### Intergroup Comparison of Therapy

In the present study, in first group 4 patients showed recurrence of pterygium and in group II only one patient presented with recurrence of pterygium. The mean score in first group was 0.5 and in second group was 0.11. On comparison value of t came out to be 1.89 so  $p > 0.01$  which is significant.

### Overall effect of Therapy

Recurrence of Pterygium occurred in 4 patients out of 9 patients of standard group and in one patient out of 8 patients of treated group. It was observed that recurrence occurred in pterygium of grade 3 i.e. fleshy pterygium. The result also coincide with the textual reference that more fleshy the pterygium, more are the chances of recurrence. Moreover the recurrence was observed in case of eye which had already undergone pterygectomy.

## DISCUSSION

*Arma*, the disease of *Shukla mandla* has been a disease of concern for ophthalmologists since ancient times. The drug used in the trial is a corrylium. The drug consists of eight constituents. These are *Haritki*, *Vibhitak*, *Pippali*, *Marich*, *Mana-shila*, *Shankha*, *Vacha* and *kushth*. *Arma* is a *Kapha* predominant *Tridoshaj Vyadhi*. The drugs used in *Chandrody Varti* are mainly suppressants of *Kaph*, possessing scrapping qualities also. The constituents of the drug like *Haritaki*, *Vibhitak*, *Marich*, *Pippli* are *Lekhan* in nature. The *guna* possessing *Lekhan* qualities are *Laghu*, *Ushana*, *Tikshana*, *Vishada*, *Ruksha*, *Sukshama*, *Khara*, *Sara* and *Kathin*. So the constituents of *Chandrody Varti* except *Manahshila* are all possessing *Lekhan* properties. The *Rasa* possessing *Lekhan* qualities are- *Tikta*, *Kshaya*, *Katu*. All constituents of *Chandrody Varti* possess these *Rasa*, so are *Lekhan* in nature. Due to these properties, *Chandrody Varti* act as a *Lekhan Dravya*. According to modern concept also, we can assume that as Antimitotic drugs act as fibrolytics

and cause scrapping of the left out pterygium tissue, *Chandrody Varti* can also act as a fibrolytic agent. The constituents of *Chandrody Varti* possess two types of properties. One type of constituents possess *ushan*, *ruksha*, *tikshan*, *laghu*, *katu*, *kashaya* and *tikta* properties and other group is *sheet*, *madhur* and *Snigdha* in nature. The first type of properties seem to cause lysis and scraping of the vitiated *Dhatus* and the second type of properties seem to protect the healthy *Dhatus* and nourish them. So the drug *chandrody varti* is specific in its self possessing both *lekhan* and *shamak* properties. The goats milk which is used for trituration possesses *Madhur*, *Sheeta* and *Snigdha* properties so counteract the irritation caused by drugs of first group.

## CONCLUSION

*Arma* of Ayurvedic literature and Pterygium of modern literature is the one and same disease. The scrapping coryllium advised by ancient *Acharyas* is very important in relation to recurrence of *Arma*. The incidence of *Arma* increases with increase in age. The progressiveness of *Arma* has no relation to its chronicity. *Chandrody Varti* affects the recurrence of *Arma* to some extent. The congestion at wound site relieves more early with *Chandrody Varti*. No adverse effect was observed during the treatment and after treatment. The study should be carried out on a large scale so that satisfactory results are gained.

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