Effect of Batankura Ksheera (Ficus benghalensis latex) and Karpoora In The Prevention of Recurrence of Arma (Pterygium) After Arma Chhedana (Pterygectomy)

*Dr. Pankaj Kundal, **Dr. Sanjeev Kumar Sharma, ***Vaidya K. S. Dhiman

Abstract:

Arma is the disease of Suklamandal of eyes. It is a chedan sadhya vyadhi which is described by the ancient authors like Sushruta and Vagabhatta in the advance stage, while in the initial stages ancient authors had advised application of Lekhan anjana i.e to cure the disease without shalya karma with the help of medicine only.

Arma can be correlated with the Pterygium in modern science according to its signs and symptoms. In this clinical study we had used the medicine for lekhan karma in the form of Batankura ksheera and Karpoora locally in the prevention of Arma after Arma chedana. The patient were randomly divided into two groups with 10 patient in each Standard group and Treated group. In Standard group surgical excision was carried out without the application of batankura ksheera and Karpoora but antibiotic with steroid and anti-inflammatory drug were given in post operative care. In Treated group surgical excision was followed by application of batankura ksheera and Karpoora daily for 5 days.

The duration of trial was 1 month in both groups with follow up for 3 months to see recurrence of Arma. A great relief was found in most of the symptoms and signs of Arma (pterygium) after the trial in Treated group. Statistically the medicine was found significant in most of the symptoms. Rate of recurrence of arma in Standard group was 40% and in Treated group it was 20%.

Key words: - Arma, Suklamandal, Batankur ksheera, karpoora, Lekhana

सारांश-

अर्म नेत्र के शुक्रमण्डल में होने वाली व्याधि है। जिसका वर्णन आचार्य सुश्रुत, वाभ्रत आदि प्राचीन आचार्यों ने विस्तारपूर्वक किया है यह एक ढेंदन साथी व्याधि है, परन्तु इस रोग को प्रारम्भिक अवस्था में लेखन अंजन की महत्वपूर्ण भूमिका है।

लक्षणों के आधार पर अर्म का आधुनिक चिकित्सा विज्ञान में तेलिविषय से सहस्रस्वत्व स्थापित किया जा सकता है इस चिकित्सीय अध्ययन में हमने अर्म के 20 रोगियों में से 10 रोगियों में अर्म ढेंदन के उपयोग बटान्कुर क्षीर एवं कर्पोरा का 5 दिन तक प्रयोग किया। चिकित्सीय अध्ययन का अवधि काल 1 माह था। परन्तु रोगियों को चिकित्सा देखरेख में 3 माह की अवधि तक रखा गया।

चिकित्सीय अध्ययन के पश्चात प्रथम समूह की अपेक्षा द्वितीय समूह के लक्षणों में उल्कित लाभ देखा गया।

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**Clinical Study**

**Effect of Batankura Ksheera (Ficus benghalensis latex) and Karpoora In The Prevention of Recurrence of Arma (Pterygium) After Arma Chhedana (Pterygectomy)**

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**Introduction**

Ayurveda the science of life is not only a treatise related to treatment but it considers about healthy man also. That’s why it has aimed at maintaining the health of a person, then treatment of the diseased.

The Eye, organ of sight is of utmost importance as far as one’s existence is concerned i.e. outside and inside world of human body. Eyes hold special status among all the senses.

In Ayurveda the science of life, Vagbhatta the great Physician has rightly described the importance of eyes in the above verse. Without Eyes the day and Night are equal so must be protected with utmost care.¹

Arma is described as a disease of shukla mandal.² Arma is meant for its progressive in nature, so the disease found its name due to its property of growing. The muscular growth which goes from kaninak or apaang sandhi towards krishna mandala is called Arma.

Arma is described among the Shukla gata Roga, as a fibrous growth of various colours and thickness, according to the Dosha involved. From the description of Arma found in our holy tests, we can compare the Arma, with the Pterygium of Modern ophthalmology.

Pterygium is a wing shaped fold of conjunctiva encroaching upon the cornea from either side with in the interpalpebral fissure.³ Pterygium is the Greek word meaning win like the butterfly it has got a head Neck and Body The triangular apex of the pterygium over the cornea is called the head, the main mass over the sclera is the body and the junction of the head and the body at the limbus is the neck of the pterygium.⁴

Recurrence is the most common complication of Pterygium surgery. Risk factors reported to have a major impact on the recurrence rate are related to Age, Fleshiness of the fibro vascular tissue and the bare sclera excision technique. The treatment of Pterygium is still controversial with various treatments being advocated in the scientific literature.

Our Acharyas were also well aware of the nature of its recurrence that’s why they have advocated various types of lekhyra Anjans for the remnants of Arma⁵. Keeping all above facts in mind about the treatment of Arma (Pterygium) Ayurvedic mode of combating the Arma Shesha with latex of Ficus benghalensis and fine powder of camphor was taken for the study.

**Aims and objectives:**

Present study was done to see the effect of Batankur Ksheera and Karpoora on the recurrence of Pterygium.

**Materials And Methods**

**(1) Selection of Patients:**

This clinical study was conducted on the outdoor Patients of Netra Roga O.P.D. of Shalaka Tantra of R.G.G.P.G.A.C. Paprola. The patients form the material which were selected for the trial irrespective of their caste, creed, race and religion.

**(2) Inclusion Criteria:**

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

**(3) Exclusion Criteria:**

Patients suffering from ocular diseases of Anterior segment such as conjunctivitis, Keratitis, Kerato conjunctivitis, patients suffering from major systemic diseases like Diabetes, Hypertension etc will also be excluded from the study.
(4) **Investigational Criteria:**

For ruling out Pathologies following Investigations were performed in all selected Patients.

- Fasting Blood sugar
- Bleeding Time
- Coagulation time.

(5) **Study Design:**

20 patients were randomly selected and divided into two groups i.e. Standard Group and Treated Group. Each groups having 10 patients.

**Standard Group:**

Surgical Excision was carried out without the application of Batankur Ksheera and Karpura but Antibiotic with steroid drop and anti inflammatory drugs were given.

**Treated Group:**

Surgical Excision was followed by application of Batankur Ksheera and Karpoor daily for 5 days for five minutes. Fresh Batankura ksheera and Karpoora was applied after rubbing on aseptic surface just after the procedure for about five minutes.

**Constituents of Drug:**

1. **Batankura ksheera** (Latex of Ficus benghalensis)
2. **Karpoora** (Fine powder of camphor)

**Method of Preparation:**

The fine powder of camphor is mixed with Latex of *Ficus benghalensis* and applied on the bare sclera area after Excision of the Pterygium tissue.

**Trial duration:**

Though the duration of trial was one month, but the patients were called for follow up for 3 months to see recurrence of *Arma*.

**Methodology:**

All patients selected for Trial were explained the nature of study and their consent was obtained on the proforma before Inclusion in the study. After arriving at diagnosis, clinical proforma was filled up which incorporated all the signs and symptoms based on both ancient and modern Literature. All points of *Dosha, Dushya* etc. are also there in proforma. Complete physical, systemic and local examination was carried out with specific investigations in all patients.

The reference of the use of Bata Latex and fine powdered camphor is taken from unpublished Manuscript on *Shata shloki*. The traditional treatment using herbs is very popular in Villupuran District of Tamil Nadu.

Patients of *Arma* of both the Groups were excised out by bare sclera Method. In Treated Group excision of *Arma* was followed by application of Latex of *Ficus benghalensis* and fine powder of camphor. Routine post operative care was taken in both the Groups.

**Follow Up:**

Patients of both the Groups were advised for follow up on 1st, 2nd, 3rd, 4th, 5th day and after 1 month, 2 months and 3 months to check the recurrence of *Arma* so as to compare the results.

(6) **Assessment criteria:**

Effect of treatment (Results) were assessed in regard to clinical sign and symptoms (on the basis of grading and scoring system) and overall improvement and inter group comparison is also undertaken.

**Results**

Maximum Patients showed symptom of Itching i.e. 30% and 20% showed symptom of watering. Both the symptom were present in 50 % of Patients.
## Table I Symptom wise distribution of 20 patients of *Arma*

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Symptoms</th>
<th>No. of Patients</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Itching</td>
<td>6</td>
<td>30 %</td>
</tr>
<tr>
<td>2</td>
<td>Watering</td>
<td>4</td>
<td>20 %</td>
</tr>
<tr>
<td>3</td>
<td>Both</td>
<td>10</td>
<td>50 %</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>20</td>
<td>100 %</td>
</tr>
</tbody>
</table>

## Table II Summary of clinical profile of Group I

<table>
<thead>
<tr>
<th>Symptom</th>
<th>BT</th>
<th>AT</th>
<th>Relief</th>
<th>% age</th>
<th>SD (±)</th>
<th>SE (±)</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Itching</td>
<td>1.8</td>
<td>0.6</td>
<td>1.2</td>
<td>66.66</td>
<td>0.78</td>
<td>0.24</td>
<td>4.8</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Lacrimation</td>
<td>1.4</td>
<td>0.3</td>
<td>1.1</td>
<td>78.5</td>
<td>0.73</td>
<td>0.23</td>
<td>4.72</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Photophobia</td>
<td>1.2</td>
<td>0.4</td>
<td>0.8</td>
<td>66.66</td>
<td>0.63</td>
<td>0.23</td>
<td>4.70</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>FB Sensation</td>
<td>1.2</td>
<td>0.3</td>
<td>0.9</td>
<td>75</td>
<td>0.316</td>
<td>0.10</td>
<td>9.00</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Ropy Discharge</td>
<td>1.3</td>
<td>0.5</td>
<td>0.8</td>
<td>61.53</td>
<td>0.421</td>
<td>0.133</td>
<td>6.00</td>
<td>&lt;.01</td>
</tr>
</tbody>
</table>

### Sign

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Mean Value</th>
<th>Relief</th>
<th>% age</th>
<th>SD (±)</th>
<th>SE (±)</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Congestion</td>
<td>1.9</td>
<td>0.4</td>
<td>1.5</td>
<td>78.94</td>
<td>0.707</td>
<td>0.233</td>
<td>6.7</td>
</tr>
<tr>
<td>Keratitis</td>
<td>1.2</td>
<td>0.3</td>
<td>0.9</td>
<td>75</td>
<td>0.316</td>
<td>0.10</td>
<td>9.00</td>
</tr>
<tr>
<td>Recurrence</td>
<td>2.99</td>
<td>1.6</td>
<td>1.39</td>
<td>46.48</td>
<td>1.35</td>
<td>0.42</td>
<td>3.247</td>
</tr>
</tbody>
</table>

## Table III Summary of clinical profile of Group II

<table>
<thead>
<tr>
<th>Symptom</th>
<th>BT</th>
<th>AT</th>
<th>Relief</th>
<th>% age</th>
<th>SD (±)</th>
<th>SE (±)</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Itching</td>
<td>1.9</td>
<td>0.4</td>
<td>1.5</td>
<td>78.94</td>
<td>0.527</td>
<td>0.166</td>
<td>9.00</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Lacrimation</td>
<td>1.6</td>
<td>0.2</td>
<td>1.4</td>
<td>87.5</td>
<td>0.51</td>
<td>0.163</td>
<td>8.57</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Photophobia</td>
<td>1.4</td>
<td>0.3</td>
<td>1.1</td>
<td>78.57</td>
<td>0.567</td>
<td>0.17</td>
<td>6.128</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>FB Sensation</td>
<td>1.2</td>
<td>0.1</td>
<td>1.1</td>
<td>91.66</td>
<td>0.31</td>
<td>0.10</td>
<td>11.00</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Ropy Discharge</td>
<td>1.4</td>
<td>0.3</td>
<td>1.1</td>
<td>78.57</td>
<td>0.567</td>
<td>0.179</td>
<td>6.128</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

### Sign

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Mean Value</th>
<th>Relief</th>
<th>% age</th>
<th>SD (±)</th>
<th>SE (±)</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Congestion</td>
<td>1.9</td>
<td>0.1</td>
<td>1.8</td>
<td>94.73</td>
<td>0.63</td>
<td>0.20</td>
<td>9.0</td>
</tr>
<tr>
<td>Keratitis</td>
<td>1.3</td>
<td>0.1</td>
<td>1.2</td>
<td>92.3</td>
<td>0.421</td>
<td>0.133</td>
<td>9.0</td>
</tr>
<tr>
<td>Recurrence</td>
<td>2.99</td>
<td>1.0</td>
<td>1.99</td>
<td>66.55</td>
<td>1.248</td>
<td>0.394</td>
<td>0.394</td>
</tr>
</tbody>
</table>
Discussion

It was seen that after 3 months Arma recurred in two patients of the standard group. 2 patients of treated group also showed recurrence of Arma. Rate of Recurrence of Arma in standard group were 40%. Rate of Recurrence of Arma in Treated Group were 20%. Other than recurrence it was also observed that congestion at the site of wound after excision disappeared more early in the treated group as compared to standard Group, where as it remained for a longer time.

Mode of action of the drug:

The constituents of Drug possess two types of properties. One type of constituents possess Ushan, Ruksha, Tikshan, Laghu, Katu, Kashaya and Tikta properties and the other group is Sheeta, Madhur and Snigdha in Nature.

The first type of properties seems 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 Powdered camphor and latex of Ficus benghalensis possess both lekhana and shamaka properties.

Arma is a (Mansa Dhatu Dushta) Kapha predominant Tridoshaja Vyadhi. The constituents of Trial drug are mainly suppressants of Kapha possessing lekhana (Scraping) qualities also.

According to modern concept also, we can assume that Antimitotic drugs act as fibrolytic agent and cause scraping of the left Pterygium tissue, trial drug act as a Fibrolytic agent.

Conclusion

Batankura Ksheara and Karpoora affect the recurrence of Arma to some extent. The Congestion at the wound site and symptom like watering are relieved more early with the application of Trial Drug. .No adverse effect was observed during the treatment and after treatment. It is concluded that the study should be carried out on a large scale so that satisfactory Results are gained.

References: