Management of Arma With Indigenous Technique – A Clinical Study

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Abstract
There is definite need to study Arma (Pterygium) as progressive pterygium causes many complications like, it invades the pupillary margin causing visual disturbances, if inflamed becomes painful, encystment at medial end, it acts like check ligament and cause diplopia, cosmetically disfiguring can cause corneal curvature astigmatism. Basically treatment of pterygium is surgical. But medical management can be tried in cases where in the pterygium is early small or inactive with minimal vascularization. These have only evoked passing interest in the treatment of pterygium. There are no proper effective medicaments and surgery is the only line of treatment according to Modern Science. Recurrence is not uncommon.

Keywords: Arma, pterygium etc.

Introduction
Arma is the Vrudhiyukta Shuklagata Roga, described in classical texts of Ayurveda. Clinical features of Arma are Mamsankura Vrudhioriginating from Kaninika Sandhi, Apanga Sandhior from both Sandhistowards the Dristimandalacausing loss of vision.

Arma can be compared to “Pterygium”, which is characterized by triangular fold of conjunctiva, encroaching the cornea, in the horizontal meridian, in the Palpabral fissure either from the nasal side or from temporal side or from the both the sides.

Lekhananjanas are very beneficial in curing and preventing the recurrence of Arma. They gradually taper the thickness of Arma and thereby preventing the growth and reduce the size. Ingredients of this preparation are easily available and cost effective, easy to apply by patient himself.

Chedana is a specialized surgical procedure used in the treatment of Arma. As it is Ashukari Chikitsagives quick relief.

Aims And Objectives:
• The present study is undertaken to evaluate the efficacy of Mareechadi Lepa used as Lekhananjana.
• To evaluate the efficacy of Chedana Karma.
• Comparision between Lekananjana and Chedanakarma.

Materials And Methods:
The methodology followed in the present study encompasses the following aspects
- Analysis
- Limitations
- Surveillance
- Source of data
- Inclusion and exclusion criteria
- Study design
- Treatment schedule
- Duration of treatment and follow up period.
- Parameters for assessing the response.
Analysis:
- To analyze the incidence of Age, Sex, Occupation and Chronicity in relation to diseased condition.
- To identify the relative effectiveness of Lekhananjana and Chedanakarma.
- To observe the overall response on the basis of subjective as well as objective parameters.
- To make follow up observation after the completion of clinical study to notice the recurrence.

Inclusion Criteria:
- Patients aged between 15-55 years.
- Clinical features as per classics.
- Sex: Either sex
- Pterygium which is limited to limbus.

Exclusion Criteria:
- Causes due to trauma
- Arma associated with anterior and posterior segmental diseases of the eye.
- Patients with diabetes mellitus, Hypertension and bleeding disorders.
- Pseudopterygium.

Study Design:
Materials:
As total of 40 patients sufferings from Arma have been taken up for the clinical study from Department of ShalakyatantraGonernmentAyurvedic College, SJIIM and teaching Hospital.

Method Followed In Group A - Lekhananjana
Once a day for 21 days follow up after 3 months

Method Followed In Group B Armachedana
Procedure once in single day follow up after 3 months

Observations And Results:
Forty patients were selected and divided into two groups (Group A, Group B) containing 20 patients each. Group A was treated with ‘Mareechadilekhananjana’, Group B with ‘ArmaChedana’. Subjective and objective changes were considered for the assessment of the efficacy of the research work.

Data were collected as follows:
1. Demographic data
2. Data related to the disease
   Data related to the response of assessment.

Statistical Analysis:
The data collected in the study are analysed statistically viz., mean, SD, percentage of confidence interval for mean. The comparision with in the group at define internvals done by using Friedman test. The comparision between the group at definite internvals is done by using non parametric test Mann-Whitney test. The Significance is considered when over P < - 0.05.
Assessment of subjective response

<table>
<thead>
<tr>
<th>Subjective response</th>
<th>Group A</th>
<th>Group B</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>2</td>
<td>8</td>
<td>10</td>
<td>25%</td>
</tr>
<tr>
<td>Satisfactory</td>
<td>11</td>
<td>9</td>
<td>20</td>
<td>50%</td>
</tr>
<tr>
<td>Poor</td>
<td>7</td>
<td>3</td>
<td>10</td>
<td>25%</td>
</tr>
</tbody>
</table>

Assessment of objective response (Thickness)

<table>
<thead>
<tr>
<th>Response</th>
<th>Group A</th>
<th>Group B</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significant Changes</td>
<td>13</td>
<td>16</td>
<td>29</td>
<td>72.5%</td>
</tr>
<tr>
<td>No changes</td>
<td>7</td>
<td>4</td>
<td>11</td>
<td>37.5%</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>20</td>
<td>40</td>
<td>100%</td>
</tr>
</tbody>
</table>

Assessment of overall response in Group A

<table>
<thead>
<tr>
<th>Response</th>
<th>Group A</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td>Satisfactory</td>
<td>13</td>
<td>65%</td>
</tr>
<tr>
<td>Poor</td>
<td>5</td>
<td>25%</td>
</tr>
</tbody>
</table>

Assessment of overall response in Group B

<table>
<thead>
<tr>
<th>Response</th>
<th>Group B</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>8</td>
<td>40%</td>
</tr>
<tr>
<td>Satisfactory</td>
<td>10</td>
<td>50%</td>
</tr>
<tr>
<td>Poor</td>
<td>2</td>
<td>10%</td>
</tr>
</tbody>
</table>

Showing responses to the treatment in both the groups

<table>
<thead>
<tr>
<th>Response</th>
<th>Group A</th>
<th>Group B</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>2(10%)</td>
<td>8(40%)</td>
<td>10</td>
<td>25%</td>
</tr>
<tr>
<td>Satisfactory</td>
<td>13(65%)</td>
<td>10(50%)</td>
<td>23</td>
<td>57.5%</td>
</tr>
<tr>
<td>Poor</td>
<td>5(25%)</td>
<td>2(10%)</td>
<td>7</td>
<td>12.5%</td>
</tr>
</tbody>
</table>

Discussion:

Arma is one of the ShuklagataNetraroga, explained by our Acharyas in detail in classical texts. In the initial stage symptoms are very minimum; hence most of the patients are not prepared to undergo treatment till the wings of pterygium extends to the corneal area.

As SamanyaNetraRogaNidanaand Sampraptihave been mentioned in the classical texts of Ayurveda similarly modern science explains several reviews regarding the etiology and pathology of pterygium. But exact knowledge of the etiology and pathological process in the formation of Arma is essential for a rational and scientific management of the disease. Both Ayurvedic and modern ophthalmologists consider this disease as Chedanasadya. But in the initial stage it can be cured with StanikabheshajaUpakramas. Thus an attempt has been made to understand the disease in a better way and to assess the response of MareechadiLekhanajana and Chedanakarmain the management of Arma.
Probable mode of Action -

Topically applied ophthalmic drugs are primarily used for local effect and systemic absorption. The mechanism of action of anjana could be better understood in the following basis in modern pharmacology. Route of drug administration – In this the drugs are applied to the conjunctival sac in the form of ointments are readily absorbed by the mucus membrane of conjunctiva, which has a good absorbing surface.

Solubility and Bioavailability –

The chosen preparation is easily water soluble, hence anjanas are easily absorbed into the tissues. Anjanas increase the bioavailability of the drug by increasing the tissue contact time and by preventing drainage of active ingredients.

Absorbing Surface - Absorbing surface is the one to which the drug is exposed. In anjana, conjunctival membrane is the one which absorbs the drugs applied.

Vascularity of absorbing surface - The drug absorption is directly proportional to the vascularity of absorbing surface. Increased blood flow brought about (inflammation) before application enhances absorption of drugs. Excretion – In general, drugs are removed and rendered nontoxic to the body in two ways, i.e., either by being excreted unaltered quickly or by being rendered inert first and then excreted at varying ratio.

The onset of action is rapid because of first pass sparing effects and probably this is the reason that collyrium of herbs has been used for Ayurvedic management.

Conclusion:

The conclusion drawn after this clinical study is that:

- The clinical features of Arma are closely related to Pterygium.
- The occurrence of Pterygium is quite common, but most of the time, it is ignored and patients seek treatment when there is visual disturbance i.e. in advanced condition.
- Superior clinical and therapeutic efficacy was found with Chedana karma in Group B.
- As Chedanakarma is one of the Astavidha Shastrakarma and it is Ashukari Chikitsa.
- Lekhananjana are also beneficial as the ingredients of this preparation are easily available and cost effective, easy to apply by patient himself.
- By Lekhananjana it is also proved that Arma can be managed with conservative line of treatment in the initial stages told in the classics and thus can be practiced in the present competitive generation with full confidence by bringing the Ayurvedic management to lime light.
- Thus early diagnosis and adequate treatment of this definitely relieves the patient from the disease without leading to much complication.

Summary:

- The present clinical study was limited to 40 patients having the features of Arma attending the O.P.D and I.P.D of Department Shalakyatantra and SJIIM Hospital Bangalore. It was divided into Group A and Group B consisting of 20 patients in each group.
- A diagnostic criterion was on the clinical features and the growth of Arma.
- The case proforma was formulated for the clinical assessment.
- Special attention was given to observations about the incidence of age, occupation, sex site of Arma and etiological factors.
- Group A receives Mareechadi Lekhananjana and Group B Chedhanakarma.
Standard criteria were considered for the assessment of results. The results considered for the assessment were analysed, compiled and statistically presented. The result obtained about the efficacy of Chedana karma in Group B was superior over the MareechadiLekhananjana in Group A. Hypothesis was drawn on Arma based on etiopathogenesis and clinical features, Hypothesis was drawn on the action of the drugs owing to its Lekhana property.

Bibliography: