To Study The Efficacy Of Lodhra & Nimba Aashchyotana In Vataj Abhishyanda W.S.R. to Simple Allergic Conjunctivitis

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Abstract

Simple allergic conjunctivitis is the most common form of ocular allergy (prevalence 5 – 22%). It is a hypersensitivity reaction to specific airborne antigens. The disease Vataja Abhishyanda, which is due to vitiation of Vata Pradhana Tridosha is comparable with this condition. The management of simple allergic conjunctivitis in modern ophthalmology is very expensive and it should be followed lifelong and Ayurveda can provide better relief in such manifestation. This is the first research study on Vataja Abhishyanda. Patients were selected from the Outpatient Department (OPD), Inpatient Department (IPD), of the Shalakya Tantra Department and were randomly divided into two groups.

In Group A LODHRA and NIMBA AASHCHYOTANA
In Group B OLOPETADINE eye drops were instilled.

Total 60 patients were registered for course of treatment. LODHRA AND NIMBA Ashchyotana gave better results in, Nistodana (Pricking pain in the Eye) Shishirashrutha (Cool Lacrimation) Shofa (Conjunctival Hyperemia and vihushkabhava

Keywords: Ashchyotana, eye drops, simple allergic conjunctivitis, Vataja Abhishyanda

Introduction

Abhishyanda is the root cause of almost all the eye disorders and must be treated as soon as possible, otherwise its complications will become severe and difficult to save the eye sight. If Abhishyanda takes a chronic course it may lead to Vataja Adhimantha, Hatadimantha, Akshipakatyaya, Avranashukla, and so on.

Vataja Abhishyanda is characterized by Toda (Pricking pain), Sangharsha (foreign body sensation), Achashhruta (watery discharge), Alpa Shopha (mild chemosis), Vishushka Bhava (feeling of dryness), Parushya (dryness), and so on, which are very similar to most of the signs and symptoms of Simple Allergic Conjunctivitis. Based on the similarities of signs and symptoms, Vataja Abhishyanda can be co-related with Simple Allergic Conjunctivitis. The prevalence is 5 – 22% in the general population and recurrence found in 41 – 62% of the cases.

Simple allergic conjunctivitis is the most common form of ocular allergy. It is a hypersensitivity reaction to specific airborne antigens basically it is an urticarial reaction. Although serious sequels as a result of corneal involvement are rare, the distressing signs and symptoms may cause extreme discomfort to the patients

Allergic conjunctivitis affects up to 40% of general population and is a common clinical problem for ophthalmology. Allergic conjunctivitis presents and even greater public heath challenge epidemiologically. Conjunctivitis is most common eye condition, according recent prevalence study in March 2011-12, percentage of allergic conjunctivitis 14.7% found mostly in urban and slum population.
Among many efficient preparation being described in our classics, the therapeutic efficacies of Lodhra & Nimba Aaschyotana is taken for study in the management of Vataj Abhishyanda, because Lodhra is chakshushya, shothhar, sheetal and Nimba having antibacterial, antiallergic properties.

Eye Drops formulation is the most common form of local drug use in ophthalmic practice. Because standard dose of the eye drops is easy to maintain and patients can easily carry it with them and instill it whenever required by them. By keeping this point in mind Lodhra & Limba Eye Drops formulation has been selected in Vataja Abhishyanda.

So an alarming rise in the incidence of the disease Vataj Abhishyandya and unknown satisfactory remedies evolved so far, has given an importance to find out a suitable solution, with better results. This is the reason that sufficient work is going on in this direction in many institutes by Ayurvedic scholars throughout the country.

Therefore it is necessary to find out an economical, effective, easily available and acceptable medicine to treat Vataj Abhishyandya. Keeping all the above points in mind a study was conducted in Hospital.

**Aims & Objectives**

**Aim:**
To study the efficacy of Lodhra & Nimba Aashchyotana in Vataj Abhishyanda

**Objective:**
1. To Study details of Vataj Abhishayanda from the Ayurvedic classics.

**Materials & Methods**

Patients will be selected from OPD & IPD of Shalakya Tantra, L.K.R. Ayurvedic Dharmadaya Rugnalaya, Gadhinglaj, Kolhapur-416502

**Preparation of Drug:**
- Lodhra & Nimbapatrawill be taken in equal quantity.
- Apply Nimbapatra, kalka on Lodhratwaka.
- After this Swedan would be done.
  (Autoclave for 30 minutes at (115 mb per square inch) pressure then cools down at room temperature)
- Then juice of above will be extracted and then filtered from muslin cloth.
- This extracted juice will be diluted upto 100 ml with WFI [ over the duration of period ]
- After centrifuge will be done for 30 min.
- After that sedimentation will be done for 1 hour.
- Then decantation will be done (filter through whatman filter paper no. 44)
- Again all these extract will be diluted to avoid crystallization process over the duration of period and any environmental condition.
- Then application will be prepare.
- Trial drug concentration = 10% v / v ( Stock Solution)
- Trial drug PH value = 7.4

**Inclusion Criteria**

1) Patients showing the classical sign and symptoms of VatajAbhishyanda (simple allergic conjunctivitis.)will be selected for the study.
2) Patients of age group between 16-55 years will be taken.
3) Patients irrespective of sex, occupation & socio-economic status will be selected.

**Exclusion Criteria:**
1) Patients of age group below 16 year and above 55 year.
2) Patients with other ocular diseases.
3) Recently orbicular surgical patients.
4) Patients with Corneal Diseases.

The study was approved by Institutional Ethics Committee. Written consent was taken from the patients.

**Grouping**
- Group A :-
  1) Lodhra & Nimba Aschyotan
- Group B :-
  1) Olopetadine 0.1% eye drops

**Criteria For Assessment Of Treatment**

The improvements in the patients were assessed mainly on the basis of the relief in signs and symptoms. For this purpose the main signs and symptoms were given a score grades according to their severity.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Absent</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Nistodana (Pricking pain in the Eye)</td>
<td>No pain</td>
<td>Present but not distressing</td>
<td>Distressing but not interfering daily life</td>
<td>Distressing and interfering daily life</td>
</tr>
<tr>
<td>2. Shishirashrutha (Cool Lacrimation)</td>
<td>No discharge</td>
<td>Occasional discharge</td>
<td>Intermittent discharge need to wipe</td>
<td>Frequent discharge need to wipe</td>
</tr>
<tr>
<td>3. Shofa (Conjunctival Hyperemia)</td>
<td>No redness</td>
<td>Eyes bright red</td>
<td>Eyes red</td>
<td>Eyes dark red</td>
</tr>
<tr>
<td>4. Vishushkabhava (Dryness)</td>
<td>(Above 10 mm)</td>
<td>Some feel dry eyes (8-10 mm)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Using by schirmer’s I-test
Moderate - Persistent feels dry eyes (5-8 mm)
Severe - Continuous feels dry eyes (Below 5 mm)

Total effect of Drugs for both groups-
Age wise distribution of all sixty patients showed that in the age group of 21-30 years 13 (21%) patients were reported, 31-40 years 17 (28.33%) patients, 41-50 years 21 (35%) patients, 51-60 years 9 (15 %), patients were reported.

Sex wise distribution of all sixty patients showed that 36(60%) male and 24(40%) female patients underwent treatment
Marital Status wise distribution of all sixty patients showed that, there are 32 (53.33%) married and 28(46.66%) unmarried patients underwent treatment

Occupation wise distribution of all sixty patients was Agriculturists 17(28.33%), Laborers 13(21.66%), service workers 6(10%) patients, and house wives 9(15%) and Students 5(8.33%) patients. businessman were10 (16.66%).

Socio economic status wise distribution of all sixty patients showed that, 14(23.33%) patients from poor class, and middle class 44(73.33%) patients, and rich class 2 (3.33%) patients

Dietary wise distribution of all sixty patients showed that, 16(26.66%) patients having Vegetarian diet, mixed diet having 44(73.33) patients.

Showing the response over significant level subjective criteria Nistodana (Pricking pain in eye) in Group A and Group B.

<table>
<thead>
<tr>
<th>Day</th>
<th>mean</th>
<th>S.D</th>
<th>S.E</th>
<th>T VALUE</th>
<th>P VALUE</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gr A</td>
<td>Gr B</td>
<td>Gr A</td>
<td>Gr B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.T</td>
<td>1.8</td>
<td>1.76</td>
<td>0.83</td>
<td>0.85</td>
<td>0.217</td>
<td>0.18</td>
</tr>
<tr>
<td>05th</td>
<td>1.3</td>
<td>0.6</td>
<td>0.66</td>
<td>0.67</td>
<td>0.172</td>
<td>4.0</td>
</tr>
<tr>
<td>10th</td>
<td>0.53</td>
<td>0.13</td>
<td>0.57</td>
<td>0.34</td>
<td>0.122</td>
<td>3.30</td>
</tr>
<tr>
<td>15th</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>20th</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Showing the response over significant level subjective criteria shishirashrutha (cool lacrimation) in Group A and Group B.

<table>
<thead>
<tr>
<th>Day</th>
<th>mean</th>
<th>S.D</th>
<th>S.E</th>
<th>T VALUE</th>
<th>P VALUE</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gr A</td>
<td>Gr B</td>
<td>Gr A</td>
<td>Gr B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.T</td>
<td>1.53</td>
<td>1.73</td>
<td>0.86</td>
<td>0.73</td>
<td>0.206</td>
<td>0.97</td>
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<tr>
<td>05th</td>
<td>0.43</td>
<td>0.46</td>
<td>0.62</td>
<td>0.68</td>
<td>0.168</td>
<td>0.17</td>
</tr>
<tr>
<td>10th</td>
<td>0.53</td>
<td>0.06</td>
<td>0.68</td>
<td>0.25</td>
<td>0.132</td>
<td>3.5</td>
</tr>
<tr>
<td>15th</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>20th</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Showing the response over significant level Objective criteria Shofa(Conjunctival Hyperemia) in Group A and Group B.

<table>
<thead>
<tr>
<th>Day</th>
<th>mean</th>
<th>S.D</th>
<th>S.E</th>
<th>T VALUE</th>
<th>P VALUE</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gr A</td>
<td>Gr B</td>
<td>Gr A</td>
<td>Gr B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.T</td>
<td>1.16</td>
<td>1.76</td>
<td>0.37</td>
<td>0.89</td>
<td>0.011</td>
<td>3.4</td>
</tr>
<tr>
<td>5th</td>
<td>1.36</td>
<td>0.26</td>
<td>0.49</td>
<td>0.52</td>
<td>0.130</td>
<td>8.4</td>
</tr>
</tbody>
</table>

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website : www.aiirjournal.com
18 Showing the response over significant level Objective criteria Vishushkabhava (Dryness) in Group A and Group B.

<table>
<thead>
<tr>
<th>day</th>
<th>mean</th>
<th>S.D</th>
<th>S.E</th>
<th>T value</th>
<th>P value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GrA</td>
<td>GrB</td>
<td>GrA</td>
<td>GrB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.T</td>
<td>1.5</td>
<td>1.73</td>
<td>0.8</td>
<td>0.7</td>
<td>0.20</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6</td>
<td>3</td>
<td></td>
<td>0.2687</td>
</tr>
<tr>
<td>5th</td>
<td>0.5</td>
<td>0.43</td>
<td>0.6</td>
<td>0.6</td>
<td>0.17</td>
<td>0.40</td>
</tr>
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<td></td>
<td>8</td>
<td>7</td>
<td></td>
<td>0.6894</td>
</tr>
<tr>
<td>10th</td>
<td>0.4</td>
<td>0.03</td>
<td>0.6</td>
<td>0.1</td>
<td>0.11</td>
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<td></td>
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<td></td>
<td>2</td>
<td>8</td>
<td></td>
<td>0.0027</td>
</tr>
<tr>
<td>15th</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>20th</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*N.SIG- statistically non-significant
*H.SIG- statistically highly significant

Overall effect of this study:
Considering the all above response of the patients in Group A and group B, there were all patients cured completely after completing treatment.

On the basis of above results it can be concluded that in both the Groups Lodhra and NimbaAaschotana and olopetadine application helps in vatajabhishyandya, and provides significant relief in all its symptoms. From observation and Statistical analysis of these findings indicate that response to treatment was significant after comparing means of two Groups.

Showing Total effects of Drugs for both groups over 30 patients-

<table>
<thead>
<tr>
<th>Effect</th>
<th>Group A Control Group</th>
<th>Group B Trail Group</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cured</td>
<td>30</td>
<td>30</td>
<td>60</td>
</tr>
<tr>
<td>Marked improved</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>Improved</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>No improved</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
</tbody>
</table>

Group A
Overall effect over group A showed 30 patients were cured.

Group B
Overall over group B showed 30 patients were cured.
TOTAL
Overall effect over 60 patients showed cured.
Discussion
Highly polluted environment has an effect on lifestyle. Simple allergic conjunctivitis is one of the outcomes of this changing lifestyle, food habits, and polluted environment.

Simple allergic conjunctivitis has an equal distribution, more or less, throughout the world, without any exception to the developed and under-developed countries

Probable mode of action of LODHRA and NIMBA AASCHOTANA (eye drops)
According to Ayurveda the instilled medicine will penetrate into the Akshikosha Srotas, Shira Srotas, Ghrana Srotas, and Mukha Srotas of the Urdhvanga Bhaga and remove the Mala present there. This happens because, Lodhra is chakshushya, shothhar, sheetal and Nimb does antibacterial, antiallergic having all properties.

Conclusions
- Among all the Nidana of Netra Roga, Raja Sevana, Dhuma Sevana, and Ritu Viparyaya can be considered as specific Nidana for Vataja Abhishyanda.
- Among all the symptoms of Vataja Abhishyanda, Toda can be correlated with pricking pain, shishirashrutha can be correlate with cool lacrimation, and Shofa with conjunctival hyperemia, vishushkabhava can be correlate with dryness in simple allergic conjunctivitis.
- LODHRA AND NIMBA Ashchyotana gives better results in the symptoms of NISTODANA, SHISHIRASHRUTHA, SHOFA, VISHUSHKABHAVA in Vataja Abhishyanda.
- No adverse effects were found during the study in both the groups.

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