A CLINICAL STUDY ON JALOUKAVCHARANAH IN THE MANAGEMENT OF VATAJA ABHISHYANDA W.S.R. TO ALLERGIC CONJUNCTIVITIS

Prakruthi.G1*, Hamsaveni.V2
*P.G.Scholar, 2Professor and Guide, Department of PG studies in Shalakya tantra, Sri Kalabyraweshwara Ayurvedic Hospital and Research centre, Bangalore, India.

KEYWORDS: Vataja abhishyanda, Allergic conjunctivitis, Jaloukavacharana.

ABSTRACT

Allergic conjunctivitis is the inflammation of conjunctiva due to allergic or hypersensitivity reactions which may be immediate or delayed. Among the 17 Sarvagata Netra Roga, Abhisayanda is one which is classified on the basis of Doshic predominance. Vataja Abhisayanda is characterized by Toda (pricking sensation), Stambha (rigidity), Romaharsha (horripulation), Sangharsha (foreign body sensation), Parushyata (roughness), Shiroabhitapa (headache), Vishushkabhava (feeling of dryness), Shishirashruta (lacrimation), Alpa Shophata (mild chemosis). Based on signs and symptoms, Vataja abhisayanda can be correlated to Allergic conjunctivitis. Acharya Vagbhata states that Syanda develops from the profound vitiation of Rakta and it should be cleared quickly through Shodhana procedure like Raktamokshana, in which Jaloukavacharana is said to be best.

A Randomised clinical study was taken up to scientifically validate the effect Jaloukavacharana where in 20 patients of Vataja Abhisayanda were selected. Patients were treated with 2 sittings of Jaloukavacharana with an interval of 5 days. Parameters considered for study include Nistoda (pricking sensation), Sangharsha (foreign body sensation), Shishirashruta (lacrimation), Raga (Congestion). Prakasha Asahishnuta (Photophobia), Vartma Sopha (Odema), presence of papillae. The effect of treatment was statistically analyzed using Paired student’s ‘t’-test. On comparing the t-values, better effect on all the considered parameters were noted which shows highly significant results and hence Jaloukavacharana is an effective modality of treatment which can be adopted in Vataja Abhisayanda where Shodhana is considered to be the best line of treatment.

INTRODUCTION

The growth of knowledge of Ayurvedic medicine attained such proportions that it has to be classified into eight specialities. Shalakya tantra is one among the Ashtangas of Ayurveda, where Acharya Sushruta has contributed a maximum extent in the field to Ophthalmology.

Abhisayanda: Netra rogas are divided based on the sthanas viz., Sandhigata, Vartmagata, Shuklagata, Krishnagata, Sarvagata and Drushtigata rogas. Sarvagata rogas are 17 and Abhisayanda is one of the Sarvagata roga, which is considered as a Vyadhana sadhya vyadhi.[1] It is characterised by excessive discharges i.e., Syandana in all channels of head and neck, including eyes.

Synonyms of Abhisayanda: Abhisayanda, Abhisyanna, Syanda, Akshikopa. Vataja Abhisayanda is characterized by Toda (pricking sensation), Stambha (rigidity), Romaharsha (horripulation), Sangharsha (foreign body sensation), Parushyata (roughness), Shiroabhitapa (headache), Vishushkabhava (feeling of dryness), Shishirashruta (lacrimation), Alpa shophata (mild chemosis).[2]

Allergic conjunctivitis: It is the inflammation of conjunctiva due to allergic or hypersensitivity reactions which may be immediate or delayed. Among the 17 Sarvagata Netra Roga, Abhisayanda is one which is classified on the basis of Doshic predominance.
reactions which may be immediate (humoral) or delayed (cellular). It occurs very frequently and is seen most commonly in areas with high seasonal allergen and pollen counts, usually seen in the form of Hay fever conjunctivitis, seasonal allergic conjunctivitis, perennial allergic conjunctivitis. Common airborne antigens, including dust, molds, pollen, grass, and weeds, may provoke the symptoms of acute allergic conjunctivitis, such as ocular itching, redness, burning, and tearing.[3]

Older population studies estimate a prevalence of 15-20% of allergic conjunctivitis, but more recent studies implicate rates as high as 40%.[4]

Acharya Vagbhata states that Syanda develops from the profound vitiation of Rakta and it should be cleared quickly through Shodhana procedure like Raktamokshana, in which Jaloukavacharana is said to be best.[5]

Jaloukavacharana of the patient should be cleared quickly through Jalouka procedure like Shodhana thereby removing the increased Syandatwa. The active constituents present in the saliva of the leech acts as anti-inflammatory, anti-thrombotic, anaesthetic which is essential to reduce the symptoms of allergic conjunctivitis.[6]

AIMS AND OBJECTIVES

- To understand the disease Vataja Abhishyanda w.s.r. to Allergic conjunctivitis.
- To evaluate the therapeutic effect of Jaloukavacharana in the management of Vataja Abhishyanda w.s.r. to Allergic conjunctivitis.

MATERIALS AND METHOD

Source of Data

Literary Source: Classical, modern literatures, contemporary text books including the websites and journals to gather information about the disease and the drug.

Sample Source: Patients with the clinical features of Vataja abhishyanda w.s.r. to Allergic conjunctivitis coming under the inclusion criteria approaching the OPD and IPD of Shalakya Tantra, SKAMCH & RC, Bangalore were selected for the study. The sample collection was initiated with post approval from the Institutional Ethical Committee.

Drug Source: The Nirvisha jalouka which fulfills the lakshanas as per classics, required for the study was procured from authenticated vendors.

Methods of Collection of data

Sampling Technique: The subjects who fulfill the inclusion and exclusion criteria were selected using random sampling technique.

Sample Size: A clinical study where in 20 patients diagnosed as Vataja abhishyanda of either sex were selected. A case proforma along with consent containing all the necessary details pertaining to the study was prepared along with consent.

Diagnostic criteria

- Patients presenting with Lakshanas of Vataja Abhishyanda.
- Patients presenting with signs and symptoms of Allergic conjunctivitis.
- Slit lamp biomicroscopy to examine papillae.

Inclusion criteria

- Patients of either sex from 10-60 years of age.
- Patients presenting with Lakshanas of Vataja abhishyanda.
- Patients presenting with signs and symptoms of Allergic conjunctivitis.

Exclusion Criteria

- Patients with complications like Marginal corneal ulcer, Trachoma, Dacryocystitis, Kerato-conjunctivitis, Infective conjunctivitis and other ocular infections.
- Patients with other systemic diseases that interfere with the course of treatment.

Intervention

The study was intervened for a duration of 15 days which is divided into treatment and follow up study comprising of 7 days each. 2 sittings of Jaloukavacharana with an interval of 5 days.

Follow up: After 7 days of treatment (on 8th day).

Total duration of the study: The total duration of the study in both the groups was 15 days.

Investigations: Haemoglobin percentage, Random blood sugar, Total count, Differential count, Absolute eosinophil count, erythrocyte sedimentation rate, clotting time, bleeding time.

Jaloukavacharana[7]

Poorva Karma

Other materials required for Jaloukavacharana

Stove, Vessel, Kidney tray, surgical gloves, Cotton and gauze, surgical plaster, Scissors.

Preparation of Jalouka

- Nirvisha jalouka was taken and was activated using Haridra churna and then shifted to a kidney tray containing clean water.

Preparation of the patient

- The patient was made to comfortably lie down in supine position, after instructing about the procedure and taking consent, in Kriyakalpa theatre, free from atmospheric effects like direct blow of air or dust and with sufficient light.

Pradhana Karma

- After giving mild fomentation over the eyes with cotton gauze dipped in hot water, Jaloukas were taken and placed over the Aponga sandhi.
When its mouth gets stuck and middle portion gets elevated assuming the shape of a horseshoe indicating that it is sucking well.

- Jaloukas were fully covered with a thin cotton piece dipped in water except for their mouth which should be left exposed.
- Waited till it falls by itself, otherwise little Saindhava was sprinkled upon its mouth.
- It was then transferred to kidney tray containing Haridra churna.

**Paschat Karma**

- After removing Jalouka, the area was cleaned using a sterile cotton pad and using Haridra, Shitila bandha was applied.
- The Jaloukas were made to vomit the sucked blood completely using Haridra churna.
- It was transferred to a clean vessel containing fresh water and its movement was noticed.
- It was then transferred into a container containing clean and fresh water mentioning all the details of its usage.
- The patient was instructed to remove bandage after 5 hours.

Fresh and activated Jaloukas (Leeches)

**Jaloukas in Apanga Sandhi of Both the Eyes**

**Assessment Criteria**

The clinical findings were noted in the case proforma and assessment was done accordingly.

<table>
<thead>
<tr>
<th>Subjective Parameters</th>
<th>Objective Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Nistoda (Pricking sensation)</td>
<td>1. Presence of Papilla</td>
</tr>
<tr>
<td>2. Sangharsha (Foreign body sensation)</td>
<td></td>
</tr>
<tr>
<td>3. Shishirashruta (Lacrimation)</td>
<td></td>
</tr>
<tr>
<td>4. Raga (Congestion)</td>
<td></td>
</tr>
<tr>
<td>5. Prakasha asahishnuta (Photophobia)</td>
<td></td>
</tr>
<tr>
<td>6. Vartma sopha (Odema)</td>
<td></td>
</tr>
</tbody>
</table>

**Scoring Index**

**Nistoda (Pricking sensation)**

<table>
<thead>
<tr>
<th>Score</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No pricking sensation</td>
</tr>
<tr>
<td>1</td>
<td>Occasionally present</td>
</tr>
<tr>
<td>2</td>
<td>Frequently present, not disturbing routine work</td>
</tr>
<tr>
<td>3</td>
<td>Persisting throughout the day disturbing the routine work</td>
</tr>
</tbody>
</table>
Statistical analysis

- For the statistical analysis the data obtained in both the groups were recorded, presented in tabulations.
- The parameters Mean, Standard Deviation (SD), Standard Error of Mean (SEM) and Standard Error of difference between two means (SE) were employed for descriptive statistics.
- To infer the clinical study Paired ‘t’-test was applied within the group.

OBSERVATION

Age: 5 (25%) patients belonged to the age group of 11-20years, 7 (35%) patients belonged to the age group of 21-30years, 5 (25%) patients belonged to the age group of 31-40years, 2 (10%) patients belonged to the age group of 41-50years and 1 (5%) patient belonged to the age group of 51-60years.

Gender: 13 (65%) patients were males and 7 (35%) patients were females.

Religion: 14 (70%) patients were Hindus and 6 (30%) patients were Muslims.

Marital status: 10 (50%) patients were married, 10 (50%) were unmarried.

Educational status: 2 (10%) patients were uneducated, 3 (15%) patients were educated up to primary school, 2 (10%) patients were educated up to middle school, 2 (10%) patients were educated up to high school and 11 (55%) were graduates.

Socioeconomic status: 2 (10%) patients belonged to lower socio-economic class, 18 (90%) patients belonged to middle socio-economic class.

Occupation: 3 (15%) patients were homemakers, 8 (40%) patients were from business category, 7 (35%) patients were students and 2 (10%) were into other occupations like tailoring, Group D workers etc.

Diet: 2 (10%) patients were vegetarians and 18 (90%) patients were consuming mixed diet.

Family history: In 6 (30%) patients family history was present and in 14 (70%) patients family history was absent.

Chronicity: 17 (85%) patients were having chronicity of ≤ 2 years, 1 patient was having chronicity of >6≤ 8 years, 2 (10%) patients were having chronicity of >8≤ 10 years.
Seasonal variation: 13 patients had seasonal allergic conjunctivitis and 7 patients had perennial allergic conjunctivitis.

Nidana: 18 (90%) patients had excessive intake of Ruksha, Amla and Katu ahara as Nidana, 16 (80%) patients had Swapna viparyaya as Nidana, 5 (25%) patients had Shoka as Nidana, 19 (95%) patients had Vishamashana as Nidana, 13 (65%) patients had Sukshma nireeksha as Nidana and 18 (90%) patients had exposure to aeroallergens as Nidana.

RESULTS

<table>
<thead>
<tr>
<th></th>
<th>Mean Before</th>
<th>Mean After</th>
<th>Mean difference</th>
<th>SE</th>
<th>t-value</th>
<th>p-value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nistoda</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pricking sensation</td>
<td>BT-AT</td>
<td>2.35</td>
<td>0.60</td>
<td>1.75</td>
<td>0.55</td>
<td>14.22</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>BT-AF</td>
<td>2.35</td>
<td>0.15</td>
<td>2.20</td>
<td>0.16</td>
<td>15.98</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td><strong>Sangharsha</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign body sensation</td>
<td>BT-AT</td>
<td>1.55</td>
<td>0.30</td>
<td>1.30</td>
<td>0.57</td>
<td>10.17</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>BT-AF</td>
<td>2.00</td>
<td>0.05</td>
<td>1.95</td>
<td>0.51</td>
<td>17.08</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td><strong>Shishirashruta</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watering of eyes</td>
<td>BT-AT</td>
<td>2.00</td>
<td>0.30</td>
<td>1.70</td>
<td>0.47</td>
<td>16.16</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>BT-AF</td>
<td>2.00</td>
<td>0.05</td>
<td>1.95</td>
<td>0.39</td>
<td>22.13</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td><strong>Raga</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Congestion</td>
<td>BT-AT</td>
<td>2.25</td>
<td>0.25</td>
<td>2.00</td>
<td>0.64</td>
<td>13.78</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>BT-AF</td>
<td>2.25</td>
<td>0.00</td>
<td>2.25</td>
<td>0.44</td>
<td>22.64</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td><strong>Prakasha asahishnuta</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Photophobia</td>
<td>BT-AT</td>
<td>1.17</td>
<td>0.00</td>
<td>1.17</td>
<td>0.39</td>
<td>4.12</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>BT-AF</td>
<td>1.17</td>
<td>0.00</td>
<td>1.17</td>
<td>0.39</td>
<td>4.12</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td><strong>Vartmasopha</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odema</td>
<td>BT-AT</td>
<td>1.35</td>
<td>0.20</td>
<td>1.15</td>
<td>0.41</td>
<td>12.53</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>BT-AF</td>
<td>1.35</td>
<td>0.10</td>
<td>1.25</td>
<td>0.44</td>
<td>12.58</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Presence of papillae</td>
<td>BT-AT</td>
<td>1.90</td>
<td>0.15</td>
<td>1.75</td>
<td>0.85</td>
<td>9.19</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td></td>
<td>BT-AF</td>
<td>1.90</td>
<td>0.00</td>
<td>1.90</td>
<td>0.64</td>
<td>13.26</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

Before treatment to after treatment and before treatment to follow up, the p value (<0.001) revealed statistically highly significant with respect to all the subjective and objective parameters.

DISCUSSION

As Acharya Charaka clearly explains, “Shastram jyothi: Prakashartam darshanam buddhiratman:” a scholar should be endowed with all the six qualities viz., Vidhya, Vitarka, Vignana, Smruti, Tatparata, Kriya which certainly helps in igniting one’s knowledge ultimately helps to attain success in treating a disease. After going through Upadesha (authoritative instructions), Prayojana (object) of this clinical study is to re-establish the facts with the help of Apadesha (reasoning) and Tarka sahita jnana. By adopting proper Vidhana (correct interpretation), here is an attempt to give a valid conclusion by proper analysis after going through Atitavekshana (retrospective references) and Anagatavekshana (prospective references).

Due to Achakshushyaha ahara vihara, Agnimandhya takes place followed by the formation of Ama. The vitiated Doshas leads to Dosha sanchaya in Koshta. Depending on the intensity of Nidanas specifically Vata prokopakara nidana and also due to triggering factors Prakopa of Dosha takes place. Vata along with other Doshas diffuses through different Siras and ascends to Urdhwajatru srotas reaches Netra. Dosha dhatu samurchana takes place with the manifestation of Purva roopa like Samrambha, Ashru, Toda and Raga. The cardinal symptoms manifest which are Nistoda, Sthamba, Romaharsha, Sangharsha, Parushya, Shirobhitapa, Vishushkabhava, Shishirashruta. If Abhishyanda is not treated it leads to Adhimanthana, specifically if Vatabhishyanda is neglected leads to Hatadhimanthana in the last stage.[8]

The general line of treatment of Vataja abhisheyanda includes Snehana with Purana ghrita.
Swedana, Siramokshana, Sneha virechana, Basti, Tarpana, Putapaka, Dhumanapana, Aschyotana, Snehana nasya, Snigdha parisheka and Shirobasti.[9]

In the present study, Raktamokshana by means of Jaloukavacharana was undertaken.

Allergic conjunctivitis (simple) is a mild, non-specific allergic reaction characterized by itching, hyperaemia and papillary response. It occurs very frequently and is seen most commonly in areas with high seasonal allergen and pollen grains. Since allergic conjunctivitis generally clears up readily, the prognosis is favorable. Complications are very rare, with secondary corneal ulcers or keratoconjunctivitis occurring rarely.[10]

Discussion on observation

More number of patients belongs to adult age group and also more are from business category. The reason could be the patients of this age group spend most of their time in outdoor environment during the day hours where they may expose to more outdoor allergens which is the predisposing factor for the disease. In this study, middle socio-economic class of people are affected more when compared to lower socio-economic class of people. This may be due to the place where the study has been done and also it may be due to the negligence towards the disease by them. A positive family history has increased risk of allergic conjunctivitis and in the present study 6 patients had a family history. Due to the small sample size this fact is not justifiable in this study. Seasonal allergic conjunctivitis is a response to seasonal allergens which is very common occurrence. The onset is sub acute; the condition is chronic in nature and occurring all through the year. In the present study also the common occurrence of the seasonal allergic conjunctivitis is elicited.

Discussion on results

The conjunctiva is more susceptible to irritation from allergens. Nerves stimulated by the allergens send signals through the sensory nerves of the afferent trigeminal nerve which transmit the signals generating sensations like pricking pain i.e., Nistoda which is considered as a prominent symptom in case of Vataja Abhishyanda. Leech application has anti-inflammatory action due to presence of substance like Bddellins and Eglins in the saliva which prevents leukocyte accumulation in the surrounding vessels, thus inhibits release of inflammatory factors exhibiting analgesic effect.

The conjunctival epithelium undergoes hyperplasia and sends downward projection into the sub epithelial tissue which on friction with lid surface causes foreign body sensation. Here, Jaloukavacharana has a pivotal role in reducing this symptom. Anti-inflammatory and anaesthetic factors present in the saliva of leeches inhibits inflammation thereby reducing hyperplasia which is causing foreign body sensation.

Anti-allergic components present in the secretory glands of leech inhibit the mast cells to reduce chemical mediators responsible for hypersecretion. As such this disease is considered due to increased Syanda guna of Rakta and hence Raktamokshana is considered as best to reduce Syandatwa there by further reducing Shishirashruta.

Leech therapy is very much recommended here because it acts by draining the congested blood vessels. Eglins, an anti-inflammatory agent present in the saliva of the leech inhibits the production of inflammatory mediators like cytokines, leucotropes and hence reduces congestion. Vasodilation effect by acetyl choline and histamine like substances and carboxy peptidase inhibitors removes congestion by increasing flow by dilating the constricted vessels.

If the vitiated blood is not let out, it gives rise to Shopha, Daha, Raga, Paka and Vedana. In Abhishyanda also there will be Sopha and raga, which can be considered as Dushita rakta lakshana. By virtue of its Sophahara and Ragahara property Jaloukavacharana has done well in this study pertaining to congestion by removing the Avarana of Rakta by Vata.

CONCLUSION

Statistically the p-value revealed highly significant effect on parameters like Raga, Sangharsha, Shishirashruta, Vartma sotha, Nistoda, Prakashasahishnuta and Presence of Papillae. The profound vitiation of Rakta dosha causes increased Syandatwa in Urdhwa jatru srotases. By means of Raktamokshana the vitiated Rakta dosha is corrected thereby relieving the signs and symptoms of Vataja abhishyanda. Jaloukavacharana has the properties to subside Shoola, Shotha, Raga, Daha. The anti coagulating factors like Hirudin, Calins, Destabilase, anti-inflammatory factors like Bddellins, Eglins, vasodilator substances like carboxy peptidase a inhibitor, Histamine like substance, mast cell inhibitors like Tryptase present in the saliva of the leeches together helps in reducing pain, congestion, inflammation by normalizing the blood circulation.

REFERENCES


Cite this article as:

Source of support: Nil, Conflict of interest: None Declared

Disclaimer: AYUSHDHARA is solely owned by Mahadev Publications - A non-profit publications, dedicated to publish quality research, while every effort has been taken to verify the accuracy of the content published in our Journal. AYUSHDHARA cannot accept any responsibility or liability for the articles content which are published. The views expressed in articles by our contributing authors are not necessarily those of AYUSHDHARA editor or editorial board members.