Research Article

A Clinical Study on the Effect of Yoganjana in the Treatment of Praklinnavartma w.s.r. to Blepharitis

Nisha1*, Lokesh2, Sanjeev Awasthi3, Kartar Singh Dhiman4

1Lecturer, Department of Shalakya Tantra, Govt. Ayurved College, Rewa (M.P), India
2Lecturer, Department of Kaumarbhritya, Govt. Ayurved College, Rewa (M.P), India
3Reader & H.O.D Shalakya Tantra, R.G.G.P.G. Ayurved College, Paprola (H.P), India
4Professor & H.O.D Shalakya Tantra, I.P.G.T & R.A, Jamnagar (Gujarat), India

*Corresponding author
Dr. Nisha
Email: nishaagrahari89@gmail.com

Abstract: The present study was carried out to assess the effect of Yoganjana in the treatment of Praklinnavartma (Blepharitis). There are 21 Vartmagata rogas, out of which Praklinnavartma is a most common ocular disorder. It is an ocular inflammation that involves the eyelid margin primarily and is a common cause of chronic ocular irritation. Blepharitis frequently leads to associated ocular surface inflammation, including conjunctivitis, functional tear deficiency, and keratitis. After years it may result in permanent reddening of lid margin, ptosis, corneal ulcers and visual impairment etc. The high recurrence rate makes blepharitis difficult to manage. The outcome of modern & Ayurvedic management is poor and there are increasing chances of recurrence. “Yoganjana” is described in Sushruta Samhita for the treatment of Praklinnavartma. In the present study 60 eyes of 30 patients were registered and drug was given for 15 days. Among these, 4 patients left the treatment before the completion of the therapy. The observation were made on 7th day & 15th day and finally at 30th day. In the group of 52 eyes of 26 patients, complete remission in 1.92%, marked improvement in 5.77%, moderate improvement in 34.62% were found. Mild improvement was found in 46.15% patients whereas 11.54% patients were remained unchanged.

Keywords: Praklinnavartma, Blepharitis, Yoganjana.

INTRODUCTION

There are 21 Vartmagata rogas mentioned in Susruta Samhita. Out of which Praklinnavartma [1] is a most common ocular disorder. It is an ocular inflammation that involves the eyelid margin primarily and is a common cause of chronic ocular irritation. Blepharitis frequently leads to associated ocular surface inflammation, including conjunctivitis, functional tear deficiency, and keratitis [2]. After years it may result in permanent reddening of lid margin, ptosis, corneal ulcers and visual impairment etc. The chronic nature of blepharitis, the uncertain etiology, the frequent coexistence of ocular surface disease and high recurrence rate make blepharitis difficult to manage [9].

The outcome of modern & Ayurvedic management is poor and there are increasing chances of recurrence. The test drug selected for the study “Yoganjana” [3] is described in Sushruta Samhita for the treatment of Praklinnavartma. The drug has Chakshusya (useful for eyes), vranashodhan-ropana (antiseptic and wound healing agent), lekhan (scrapping) and kandughana properties. The consideration of the gravity of the problem this attempt has been done to proved scientifically that the medicine is effective in the treatment of blepharitis and avoiding its complications.

Aims and Objectives

- To study Praklinnavartma and Blepharitis to find out the correlation between each other.
- To evaluate the efficacy of Yoganjana on the course of Praklinnavartma.
- To study the side effect/toxic effect of Yoganjana if any.

Scope

- To evaluate the effect of Yoganjana on the various signs and symptoms of Praklinnavartma (Blepharitis).
- To come out with herbomineral formulation in the management of Praklinnavartma (Blepharitis).

MATERIALS AND METHODS

Total 60 eyes of 30 patients fulfilling the criteria for the diagnosis of the disease were registered
for the present study. Among these, 4 patients left the treatment before the completion of the therapy. The patients were selected from the O.P.D. of Dept. of Shalakya, R.G.G.P.G. Ayurved College, Paprola.

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- **Group**: Single group has been taken.
- **Dose**: Sufficient amount of ointment to be applied on lid margin 3 times/day.
- **Duration**: 15 days.
- **Follow up**: Periodical follow up was carried out after 7 and 15 days.

The assessment was done on the basis of improvement in signs & symptoms and investigation. Assessment of the clinical symptoms depending on the severity was done according to the scoring pattern.

**RESULTS**

Total 30 patients were registered (there is only one group), amongst them 26 patients had completed the course of treatment and 04 patients left against medical advice. It was found that maximum number of patients i.e. 40% belonged to age group of 11-20 years, female patient 53.33%, hindu 93.33%, 56.67% were vegetarians, 56.67% were from anupa desha, 56.67% were having madhura rasa pradhan dravya in diet, 96.67% of patients had madhyama appetite, 83.34% of patients had regular bowel, 33.33% of patients had Vata-Kapha Prakriti and also Pitta-Kaphaja Prakriti, 40% of patients had Rasa Sara, 83.34% of patients had Madhyama Samahanana, 70% of patients had Madhyama satva. 80% of the patients had Madhyama Satmya, 96.67% of patients had Madhyama Aharashakti, 90% of patients had Madhyama Vyayamashtiki, 50% of patients were of Kaumara vaya, 46.67% patients were suffering from mild pain, 81.67% patients from lid edema, 90% patients from palpebral congestion, 41.67% patients with bulbar congestion, 90% patients had itching in eyes, 95% patients had scaling on the lid margin, remaining 25% patients had ulcerated lid margin. The study highlights that maximum 80% of patients having dandruff on their scalp.

In the group of 52 eyes of 26 patients, complete remission in 1.92%, marked improvement in 5.77%, moderate improvement in 34.62% were found. Mild improvement was found in 46.15% patients whereas 11.54% patients were remained unchanged.

**Table 1: Effect of therapy according to sign & symptoms**

<table>
<thead>
<tr>
<th>Feature</th>
<th>n'n</th>
<th>Mean Score</th>
<th>% Relief</th>
<th>X</th>
<th>SD</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild Pain</td>
<td>22</td>
<td>1.18</td>
<td>0.95</td>
<td>19.23</td>
<td>0.22</td>
<td>0.42</td>
<td>0.09</td>
<td>2.48</td>
</tr>
<tr>
<td>Lid Edema</td>
<td>44</td>
<td>1.77</td>
<td>1.56</td>
<td>11.53</td>
<td>0.20</td>
<td>0.46</td>
<td>0.06</td>
<td>2.93</td>
</tr>
<tr>
<td>Palp. Congestion</td>
<td>46</td>
<td>1.54</td>
<td>1.47</td>
<td>4.22</td>
<td>0.06</td>
<td>0.24</td>
<td>0.03</td>
<td>1.77</td>
</tr>
<tr>
<td>Bulb. Congestion</td>
<td>19</td>
<td>1.10</td>
<td>0.73</td>
<td>33.33</td>
<td>0.36</td>
<td>0.49</td>
<td>0.11</td>
<td>3.24</td>
</tr>
<tr>
<td>Discharge</td>
<td>26</td>
<td>1.30</td>
<td>1.11</td>
<td>14.70</td>
<td>0.19</td>
<td>0.40</td>
<td>0.07</td>
<td>2.43</td>
</tr>
<tr>
<td>Itching</td>
<td>48</td>
<td>1.89</td>
<td>0.56</td>
<td>70.32</td>
<td>1.33</td>
<td>1.05</td>
<td>0.15</td>
<td>8.72</td>
</tr>
<tr>
<td>Scale</td>
<td>49</td>
<td>1.77</td>
<td>0.59</td>
<td>66.66</td>
<td>1.18</td>
<td>0.72</td>
<td>0.10</td>
<td>11.40</td>
</tr>
<tr>
<td>Ulcer</td>
<td>13</td>
<td>1.38</td>
<td>0.84</td>
<td>38.88</td>
<td>0.53</td>
<td>0.66</td>
<td>0.18</td>
<td>2.94</td>
</tr>
</tbody>
</table>

**Table 2: Overall effect of therapy on 52 eyes of 26 Patients of Praklinnavartma**

<table>
<thead>
<tr>
<th>Effects</th>
<th>No. of Patient’s eye</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete remission (100%)</td>
<td>01</td>
<td>1.92%</td>
</tr>
<tr>
<td>Marked improvement (75-99%)</td>
<td>03</td>
<td>5.77%</td>
</tr>
<tr>
<td>Moderate improvement (50-74%)</td>
<td>18</td>
<td>34.62%</td>
</tr>
<tr>
<td>Mild improvement (25-49%)</td>
<td>24</td>
<td>46.15%</td>
</tr>
<tr>
<td>Unchanged (&lt;25%)</td>
<td>06</td>
<td>11.54%</td>
</tr>
</tbody>
</table>

**Fig. 1: Overall effect of therapy**
DISCUSSION

Praklinnavartma (Blepharitis) is a disease of vartma and is explained by Acharyas. In classical texts, a clear explanation of signs and symptoms with a slight variation amongst different authors is available. It is Kaphaj aushadha sadhya vyadhii and at the same time various treatment protocols have been enumerated. Out of all the diseases described in vartma gata roga, Praklinnavartma is similar to Blepharitis starting from its derivation to treatment principles.

In Ayurvedic texts no separate Nidanas (causative factors) are mentioned for most of the disease including Praklinnavartma. Hence general causative factors are to be taken as causative factors for Praklinnavartma also. These Nidanas [4] are classified into Aharaja (dietary cause) as the rasas like Amla and Katu particularly harmful for eyes e.g. Kullatta, Musha etc. can result into formation of Ama & vitiation of Doshas; Viharaja(regimental) as hot water head bath, daytime sleeping, smoking, watching moving objects etc. as well as Munasika (psychological) and Aaghataja (traumatic).

Praklinnavartma (Blepharitis) has been described in our classics as independent disease. The major aspect of disease Praklinnavartma (Blepharitis) is Aruja, Bahyaiah Shunam, Antaah Klinnunam, Srava, Kanda & Nistoda. It is Kapha Pradhana disease & Chronic in nature. Recurrence of the disease Praklinnavartma mainly occurs due to Doshas, which are situated in the body in latent state and when favorable condition (aggravating factors) occurs then disease again reappear. Blepharitis is a chronic inflammation of the lid margin. It is characterized by a variety of clinical manifestations which often includes alteration of ocular surface.

The present trial drug Yoganjana is a herbomineral composition containing 4 ingredients (Kasisa, Samudraphena, Jatikali, Rasanjana and Madhu). Yoganjana is a Ropanajana (a healing agent in ointment form) because it contains Kashaya-tikta pradhana Rasa [5]. Rasanjana is obtained from the stem and root of Berberis aristata. It contains alkaloid berberine which is anti septic and bactericidal in action. The Rasa of Rasanjana is Katu & Tikta due to which it is having a property of chakshuvireshana, abhishyandhreshaka, kandukledanashaka, lekhana & vanaavasadaka [6]. So, it has been confirmed to have an anti inflammatory, anti bacterial and anti fungal properties. The rest of the drugs have kashaya-tikta-madhura rasa &due to which it is having a property of sanshamana, shodhan, ropan [7] etc.

There is no limitation in the age & majority of cases were in the age of 11-20 yrs. i.e. 40%.Comparatively female ratio (53.3%) is more this may be due to mode of work where females are regularly involving house work of cleaning without protective precautions. It was observed that 93.3% of cases were Hindus because Hindus constitute the majority of the population in the country. Majority of the patients were from Anupa area i.e. 56.67%. This reflects the geographical location of this particular region. As mentioned in Ayurvedic literature that there is predominance of Kapha in Anupa area and occurrence of Kapha pradhan diseases are frequent [8], we may conclude that incidence of the Praklinnavartma is a very common ailment in this particular locality. High incidence of madhura rasa satmya i.e. 56.67% reflects the increased level of kapha in the body leading to the formation of this disease. The maximum i.e. 33.33% patients had Vatta-Kapha & Pitta-Kapha Prakriti, 20% patients had Kapha Prakriti. Though, Praklinnavartma occurs due to aggravation of Kapha- Vatta Doshas but mainly it involves Kapha as depicted in Ayurvedic texts. As this sample is very small, no definite correlation between Sharira Prakriti and occurrence of Praklinnavartma could be established. But it is clear from the above fact that this disease is common in Kapha pradhana prakriti.

The study highlights that maximum 80% of patients having dandruff on their scalp. It was observed that blepharitis (mainly seborrhoeic type) was seen in those patients who had already seborehea. So it must be included in the causative factor of blepharitis (Praklinnavartma).

It was observed that 46.67% of patients were suffering from mild pain, 81.67% patients from lid edema,90% patients from palpebral congestion,41.67% patients with bulbar congestion,50% patients had discharge ,90% patients had itching in eyes, 95% patients had scaling on the lid margin, remaining 25% patients had ulcerated lid margin. It shows that among 8 features involvement of scaling on lid margin, itching and palpebral congestion are the most common feature in majority of the patients.

The effect of drug is evaluated on different signs & symptoms of blepharitis. The observation were made on 7th day & 15th day and finally at 30th day. The drug therapy was stopped on 15th day and effect of drug withdrawal was also seen in the patients. The results have been presented after applying student’s t-test.

The mean grade of pain before treatment was 1.18 and after treatment it became 0.95. The reduction being 0.22 (t=2.48) is significant statistically. This effect may be due to anti-inflammatory & wound healing property of this drug. The mean grade of Lid edema before treatment was 1.77 and after treatment it became 1.56. The reduction being 0.20(t=2.93) is significant statistically. This effect may be due to anti-inflammatory property of this drug. The mean grade of congestion in palpebral conjunctiva before treatment was 1.54 and after treatment it became 1.47. The reduction being 0.06 (t=1.77) is insignificant.
The mean grade of scaling before treatment was 1.10 and after treatment it became 0.73. The reduction being 0.36 (t=3.24) is significant statistically. This effect is due to anti-inflammatory & astringent property of the drug. The poor response over palpebral congestion in comparison to bulbar congestion can be explained on the ground that palpebral conjunctiva (lid conjunctiva) is the site of origin of disease whereas the bulbar conjunctival congestion was its extension. When the bulbar conjunctival congestion has receded within 2 weeks duration it is expected that palpebral will certainly reduce by application of Yoganjana for longer duration. The mean grade of discharge before treatment was 1.30 and after treatment it became 1.11. The reduction being 0.19(t=2.43) is significant statistically. This effect is due to anti-inflammatory & anti-microbial property of the drug. The mean grade of itching before treatment was 1.89 and after treatment it became 0.56. The reduction being 1.33 (t=8.72) is highly significant statistically. The cause of itching is potent kapha dosha and Yoganjana has kaphagna property. The mean grade of scaling before treatment was 1.77 and after treatment it became 0.59. The reduction being 1.18 (t=11.40) is highly significant statistically. This effect is due to anti-inflammatory & anti-microbial property of the drug. The mean grade of ulceration before treatment was 1.38 and after treatment it became 0.84. The reduction being 0.53 (t=2.94) is significant statistically. This effect is due to anti-inflammatory & anti-microbial property of the drug.

CONCLUSION
The application of Yoganjana relieves the various signs & symptoms of Praklinnavartma e.g. itching, scaling, lid edema, bulbar congestion, discharge & ulceration within 2 weeks therefore we may conclude that the Yoganjana is most effective drug for the treatment of blepharitis (Praklinnavartma).

REFERENCES