ROLE OF KARANJADI ANJANA IN MANAGEMENT OF BLEPHARITIS
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Received on: 19/10/15 Revised on: 17/11/15 Accepted on: 09/12/15

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DOI: 10.7897/2277-4343.07129

ABSTRACT
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 concept of blepharitis was also present in Indian system of medicine i.e. Ayurveda. The clinical features of Shyava vartma, Klinna vartma and Krimigranthi is described by the Sushruta, Vagbhata, Yoga ratnakar and Madhava. Numerous uses of drugs and attempts have been tried to treat this disease. Thus, the rich treasure of Ayurveda was explored and one formulation from Astang-hridaya was picked up for scientific clinical evaluation in the treatment of blepharitis. Aim of the study was to compare the effect of Karanjadi anjana in management of blepharitis with control group (Antibiotic and steroid ointment) and placebo group (Vaseline petroleum jelly). 20 Patients were registered in each group and treated with their respective drug. Karanjadi anjana shows better results in itching, burning sensation, irritation and watering than control and placebo group. Karanjadi anjana can be used as safe and cost-effective treatment for management of blepharitis.

Keywords: Blepharitis, Shyava vartma, Klinna vartma, Krimigranthi, karanjadi anjana

INTRODUCTION
Chronic blepharitis is a very common cause of ocular discomfort and irritation. Involvement is usually bilateral and symmetrical. Blepharitis may be sub-divided into anterior and posterior although there is often considerable overlap in symptoms1; features of both are often present the poor correlation between symptoms and signs, the uncertain etiology, and mechanisms of the disease process, conspire to make management difficult. Blepharitis affects the area surrounding bases of lashes2. (Staphylococcal or seborrheic). The former thought to be result of an abnormal cell mediated response to components of the cell wall of S. aureus3. Seborrhoeic blepharitis is often associated with generalized seborrhea that may involve the scalp4. The disease blepharitis undertaken here is as such not described in Ayurveda. But the symptoms of this if taken into deep considerations will give a clue to various vartmagata roga described in Ayurvedic texts like karimgranthis, pakshmashata, klinna vartma that simulate to this disease in most of the symptoms.

MATERIAL AND METHODS
Preparation of Drugs
The formulation was prepared in form of Raskriya as per mentioned text in laboratory of Department of Shalakya Tantra, Faculty of Ayurveda, Institute of Medical Science, BHU and Varanasi. Here the prepared drug is composed of ingredients like Karanj bee (Pongamia pinnata) Jati panchanga (Jasminum officinale), Tulispatra (Ocimum sanctum), altogether prepared as general procedure of rasakriya, mentioned in our Samhita5.

Clinical trial of this drug is done for Assessment of overall mean changes in grades of specific component of blepharitis.

Comparison of overall mean changes between patients among different groups.
Assessment of drug withdrawal on recurrence of blepharitis.

Grouping of patients
Group 1 –Drug trial (Karanjadi anjana)
Group 2 –Control (Antibiotic and steroid ointment)
Group 3 –Placebo (Vaseline petroleum jelly).

Number of patients 20 in each group, may be unilateral or bilateral condition, the more distressing eye is taken for further study. Ethical clearance no: Dean/2009-10/878/4-2

Follow up
As mentioned earlier the duration of therapy was a period of 60 days. Patients were examined on an interval of 7th, 15th and 30th, 60th day. Hence the patients were examined two times during the total period of therapy. After 60th the day the drug administration was stopped and the patients only were asked to review on 90th days. This was done in order to see the effect of drug withdrawal on Blepharitis.

Inclusion criteria
All the patients having blepharitis above the age of 10 years. Patient with seborrhoecic as well as blepharo-conjunctivitis. Patients with blepharitis associated with dermatitis and scalp dandruff were also included in the study.

Exclusion criteria
Patient with blepharitis and having disease like trichiasis, entropion etc. were excluded.
Patient having active diseases of eyeball like uveitis, diabetic eye disease etc. were excluded.

Statistical Analysis
Anova and kruskal wall is test - was used to make a comparison of the groups.
Assessment Criteria
The assessment criteria were done on the basis of signs and symptoms. The following grading system was used to record findings of the various ocular features.

**Burning sensation, itching, irritation and grittiness**
0: Absent
1: Mild (present but not distressing)
2: Moderate (distressing but not distressing with daily life)
3: Severe (very distressing and interfering with daily life)

**Photophobia**
0: Absent
1: Mild (can work outdoor with slight discomfort)
2: Moderate (can work in day light with moderate discomfort)
3: Severe (can open eyes with difficulty in light)

**Redness of the lid margin and conjunctival hyperaemia**
0: Absent
1: Mild (some vessels are detectible)
2: Moderate (individual vessels are detectible)
3: Severe (individual vessels are not easily detectible)

**Watering**
0: Absent
1: Mild (increased tear film meniscus, occasionally, tear flow out of eyes)
2: Moderate (outflow of tears 4-5 times/day on exposure to wind or doing some work)
3: Severe (outflow of tears most of the time in a day)

**Crusting**
0: Absent
1: Mild (crust visible on slit lamp examination)
2: Moderate (crust not dense, involving the whole lid margin and easily recognized by naked eye)
3: Severe (dense wall of crust involving the whole lid margin and easily visible with naked eye)

**Madarosis**
0: Absent
1: Mild
2: Moderate
3: Severe

**Capped meibomian glands**
0: Absent
1: Mild capping
2: Moderate
3: Severe

**Oily tear film**
0: Absent
1: Mild
2: Moderate
3: Severe

**OBSERVATION**

![Graph 1](image1)

![Graph 2](image2)
Graph 9

Redness

Graph 10

Madarosis
Graph 11

Conjunctival Hyperemia

Graph 12

Meibomian gland abnormality
DISCUSSION

This is a preliminary study conducted on limited number of patients. The clinical study demonstrates the role of Karanja anjana in the management of blepharitis. It was found that: blepharitis simulate many Vartmagata disease described in Ayurvedic texts like Shyava vartma, Klinna vartma; Pakshmashata; Krimigranthi, that tally to the disease with few of the clinical features or in to.

The recent trend of treatment for the disease hence gives just control of the disease but not complete cure, so in perspective of this, an herbal drug preparation is tried for better alleviation of the disease that can be beneficial for the patient and doctor both. The drug Karanja anjana has been tried for the same purpose, and the following conclusions can be drawn from the whole study:

The application of Karanja Anjana with maintenance of hygiene relieves the various symptoms of blepharitis i.e. burning sensation, itching, irritation, grittiness, photophobia, redness and watering.

The drug diminished the various signs of the blepharitis i.e. inflammation of lid margin, crusting, madarosis and hyperaemia in greater degree as compared to maintenance of hygiene only.

There are no side effects observed after application of karanja anjana apart from slight irritation in the eyes.

Probable action of drugs

**Pharmacological action of Karanja bheej (Pongamia pinnata)**

Direct ethanolic extract (50-100mg/kg) of P. pinnata seeds given 30-60 min before revealed anti-inflammatory, analgesic, anti-ulcerogenic activities in rats.

**Pharmacological action of Tulsi patra(Ocimum sanctum)**

In animal studies with carrageenin induced hind paw odema, the ethanolic extract of fresh leaves, volatile and fixed oils show significant inhibition of paw odema. The same effect is also seen against serotonin, PGE2 and histamine induced paw odema.

The extract and oil of O. sanctum shows significant anti-inflammatory activity against all the four phlogistic agents i.e. carrageenin, serotonin, histamine and PGE2 induced inflammations.

**Pharmacological action of Jati puspa (Jasminum officinale)**

Jati (Jasminum officinale) again shows anti-inflammatory anti-microbial and analgesic activity.

Overall result observed during the study are as

Very Good (81-100%)—Cured patients in group one having burning, itching, grittiness, cursting, and meibomian gland anomaly.

Good—(51-80%)—Cured patients in group one having irritation, photophobia, watering, redness, madarosis, hyperemia, and oily tear film.

This study gives encouraging view with respect to Ayurveda and Ayurvedic medicines and their potential to heal various diseases of eye like blepharitis in better ways that are available till now. 74.1% patients cured in group 1
47.2% patients cured in group 2
9.78% patients cured in group 3

**Symptoms**

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Effect of Drug</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burning</td>
<td>Very good</td>
</tr>
<tr>
<td>Itching</td>
<td>Very good</td>
</tr>
<tr>
<td>Irritation</td>
<td>Good</td>
</tr>
<tr>
<td>Grittiness</td>
<td>Very good</td>
</tr>
<tr>
<td>Photophobia</td>
<td>Good</td>
</tr>
<tr>
<td>Watering</td>
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</tr>
<tr>
<td>Crusting</td>
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<tr>
<td>Photophobia</td>
<td>Good</td>
</tr>
<tr>
<td>Conjunctival hyperemia</td>
<td>Good</td>
</tr>
<tr>
<td>Meibomian gland abnormality</td>
<td>Very good</td>
</tr>
<tr>
<td>Oily tear film</td>
<td>Good</td>
</tr>
</tbody>
</table>

**CONCLUSION**

This is a preliminary study which needs to be established by doing clinical trial on bigger sample size. However, this study makes a sufficient ground for further clinical trials as statistically significant and clinically satisfactory improvement in all patients has been observed.

**REFERENCES**


**Cite this article as:**


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

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