



Research Article

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ROLE OF KARANJADI ANJANA IN MANAGEMENT OF BLEPHARITIS

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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 Nidana resembled with clinical features of blepharitis. Numerous uses of drugs and attempts have been tried to treat this disease, but it is still with us. Re-activation and recurrence is also a major fact regarding the 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 seborrhoeic). The former thought to be result of an abnormal cell mediated response to components of the cell wall of *S. aureus*³. 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 krimigranthi, pakshmathata, 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 beez, (*Pongamia pinnata*) Jati panchanga (*Jasminum officinale*), Tulsipatra (*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)

Group3 –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 seborrhoeic as well as blepharo-conjunctivitis.

Patients with blepharitis associated with dermatitis and scalp dandruff were also include 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

Annova 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 detectable)

2: Moderate (individual vessels are detectable)

3: Severe (Individual vessels are not easily detectable)

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

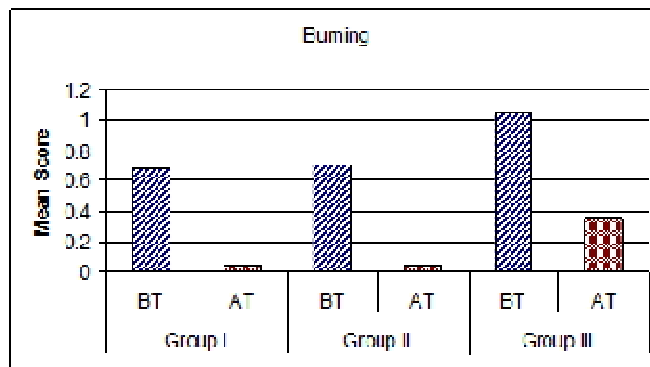
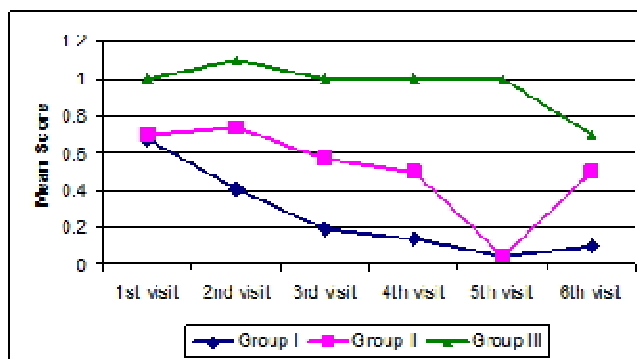
1: Mild

2: Moderate

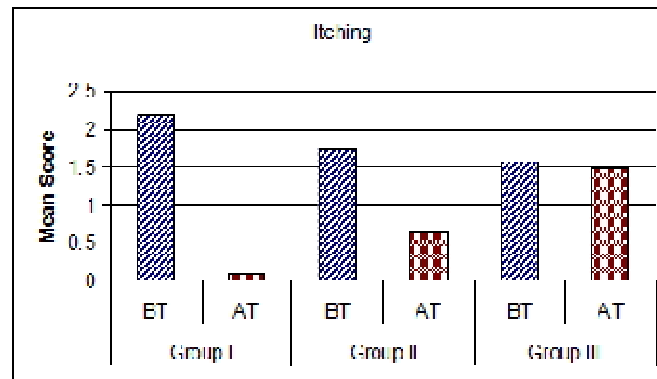
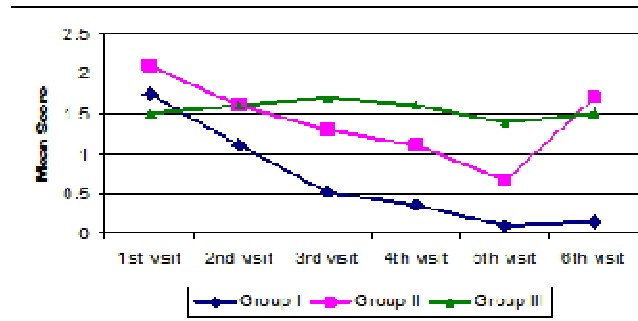
3: Severe

OBSERVATION

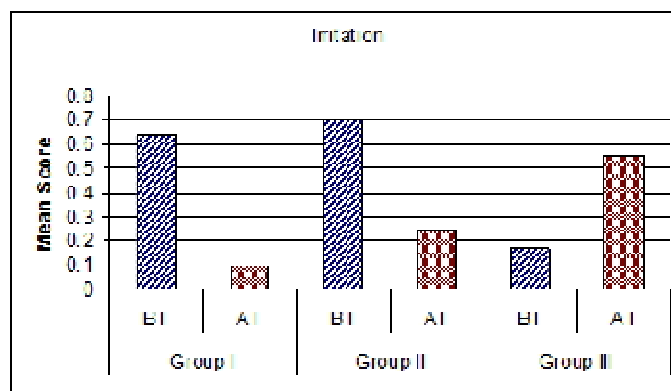
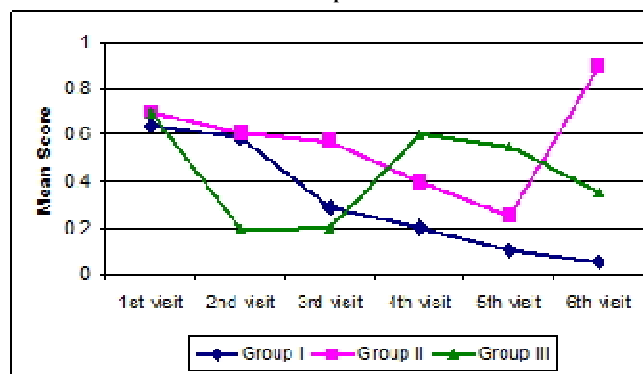
Graph 1



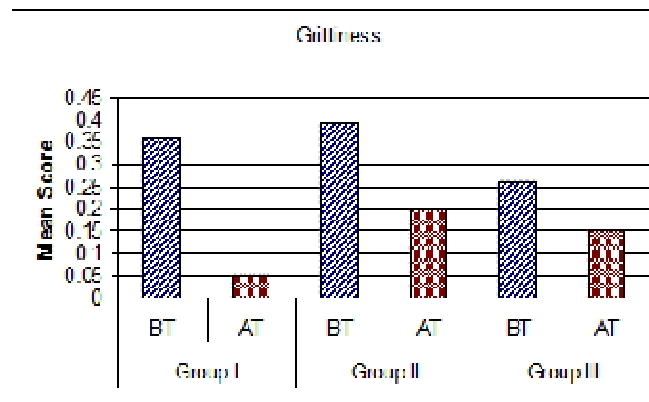
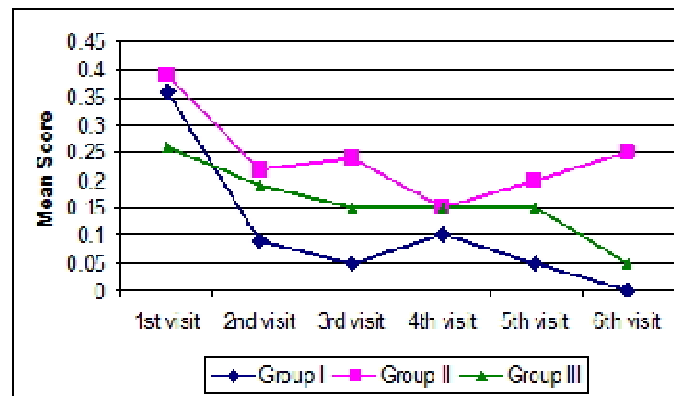
Graph 2



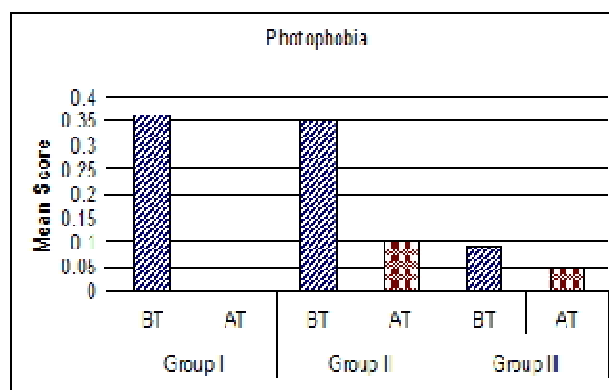
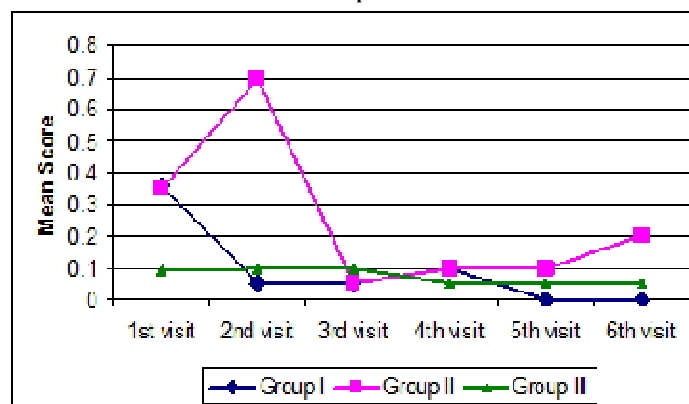
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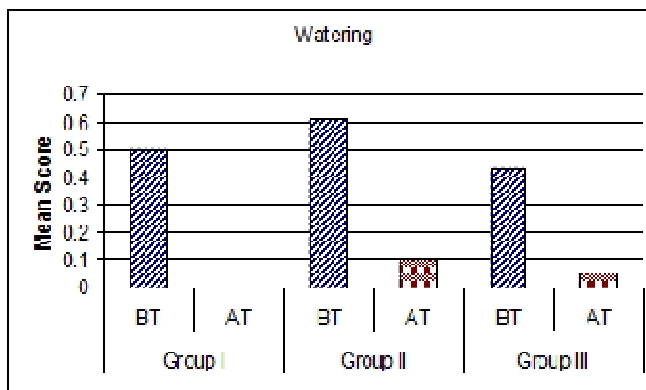
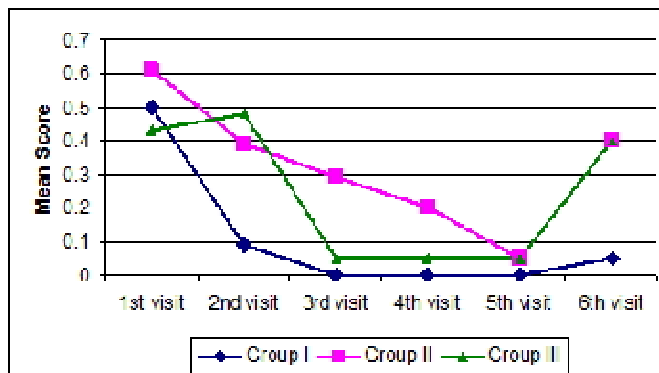
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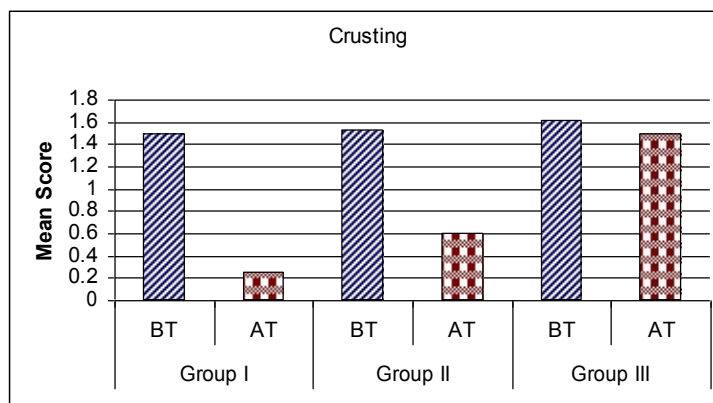
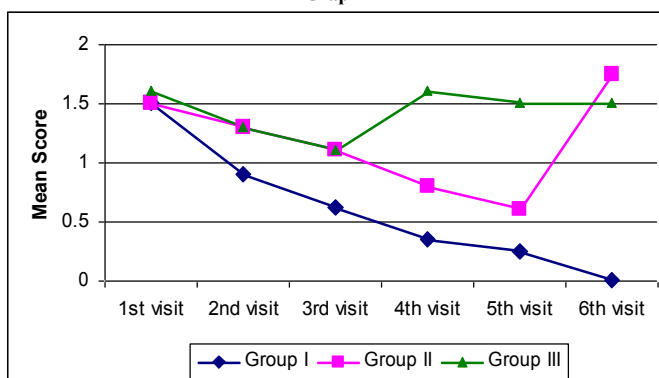
Graph 5



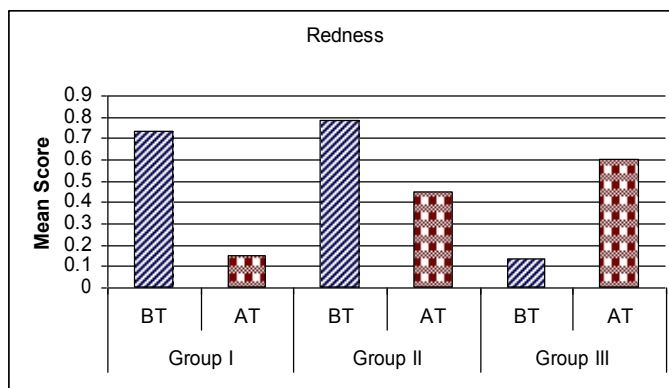
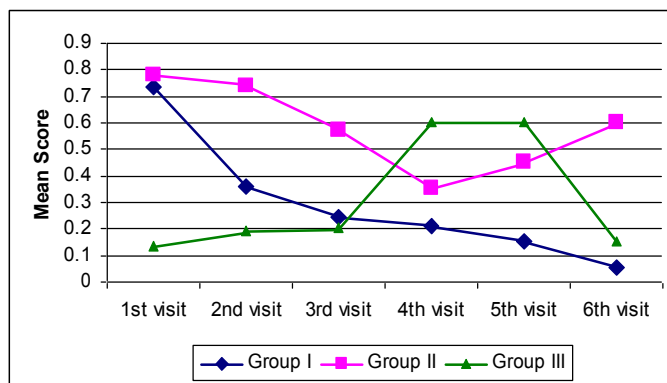
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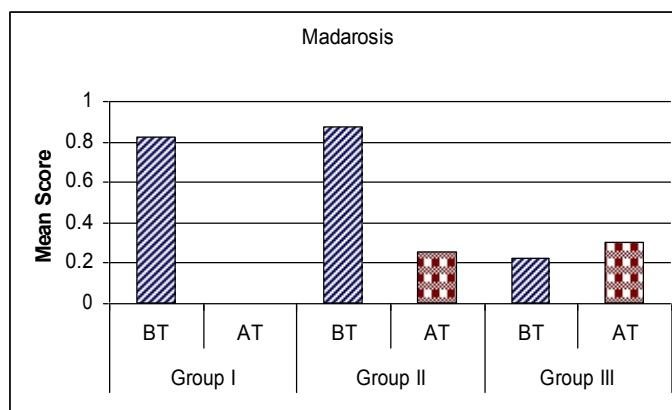
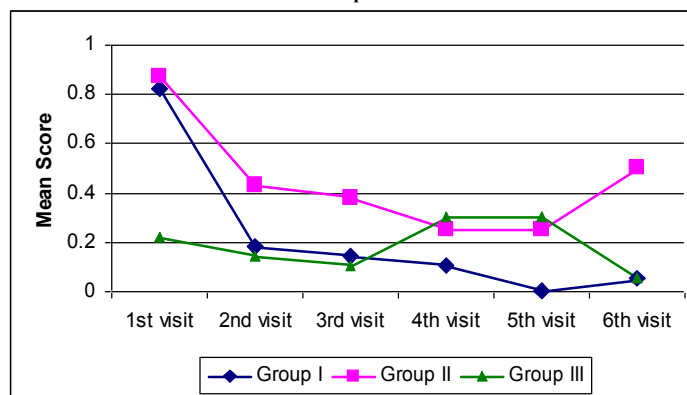
Graph 7



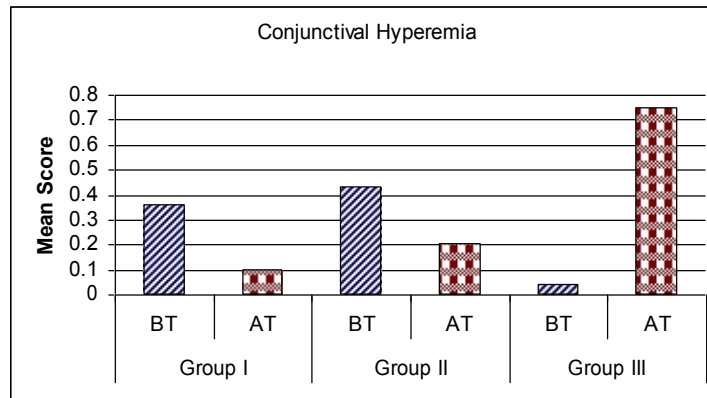
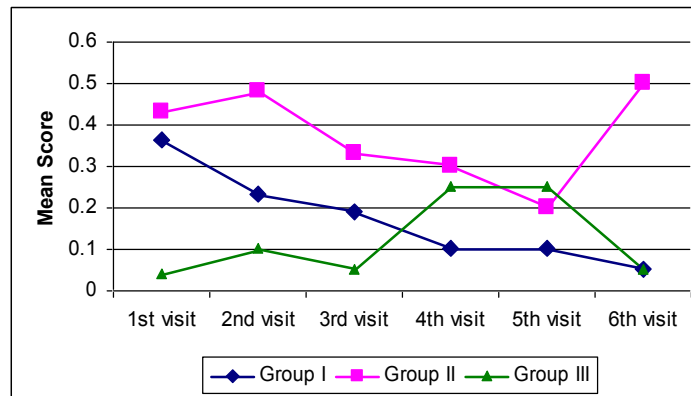
Graph 8



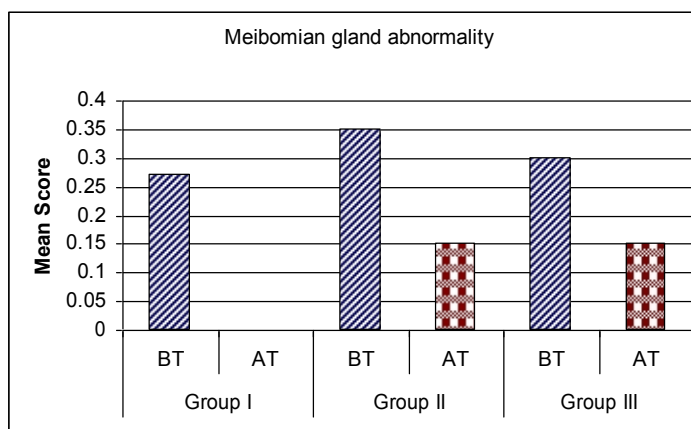
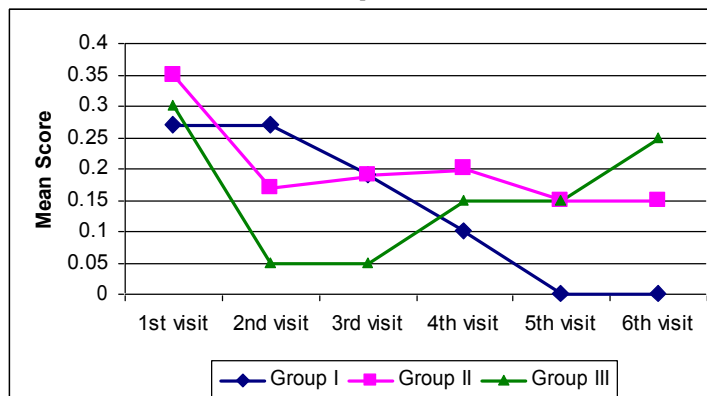
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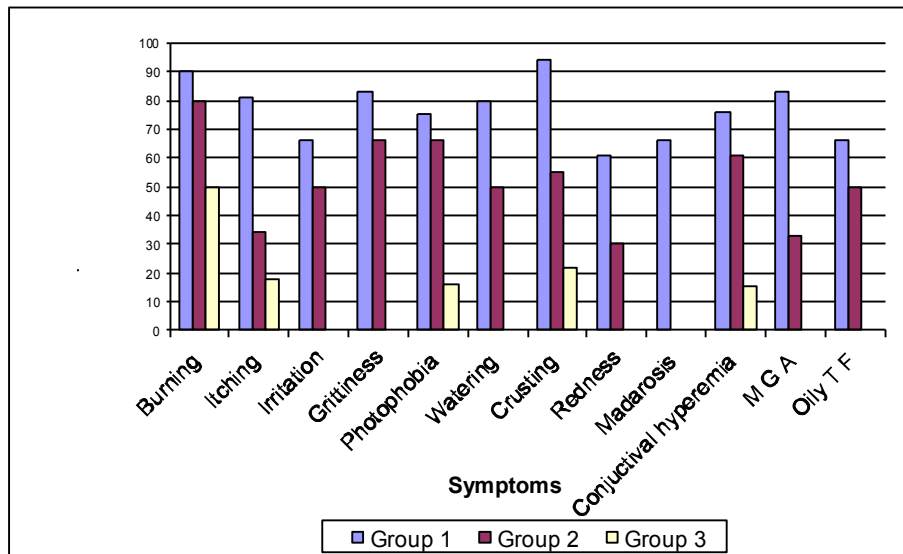
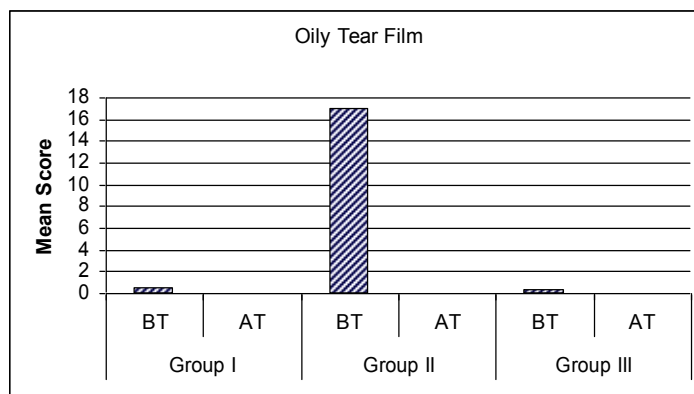
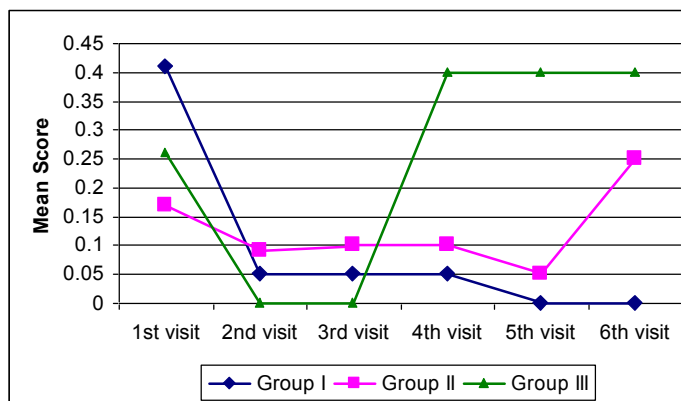
Graph 10

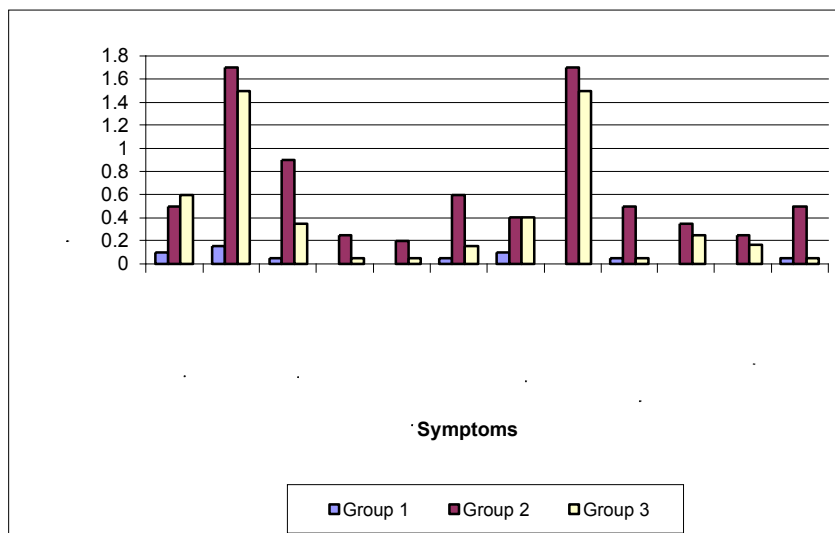


Graph 11

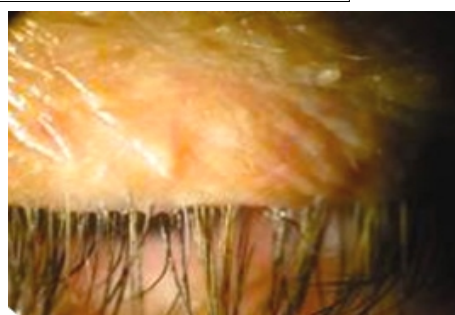


Graph 12





Before Treatment



After Treatment

DISCUSSION

This is a preliminary study conducted on limited number of patients. The clinical study demonstrates the role of Karanjadi anjana in the management of blepharitis. It was found that: blepharitis simulate many Vartmagata disease described in Ayurvedic texts like Shyava vartma, Klinna vartma⁶; Pakshmashata⁷; Krimigranthi⁸, 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 Karanjadi anjana has been tried for the same purpose, and the following conclusions can be drawn from the whole study:

The application of Karanjadi 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 karanjadi 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 rats⁹.

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 inflammations¹⁰.

Pharmacological action of Jati puspa (*Jasminum officinale*)

Jati (*Jasminum officinale*) again shows anti-inflammatory anti-microbial and analgesic activity¹¹⁻¹²⁻¹³.

Overall result observed during the study are as

Very Good (81-100%)—Cured patients in group one having burning, itching, grittiness, crusting, 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	Effect of drug
Burning	Very good
Itching	Very good
Irritation	Good
Grittiness	Very good
Photophobia	Good
Watering	Good
Crusting	Very good
Redness	Good
Madarosis	Good
Conjunctival hyperemia	Good
Meibomian gland abnormality	Very good
Oily tear film	Good

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.

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