



A Clinical Study To Assess The Efficacy Of Pippalyadya Anjana In Arma With Special Reference To Pterygium

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ABSTRACT

Arma is one of the Shuklagata Rogas explained by Maharshi Sushruta and Vagbhata. Clinical features of Arma are Mamsa Vridhi originating from Kaninika Sandhi, Apang Sandhi or from both towards Drushtimandala causing loss of vision. According to Ayurvedic classics we may stop growth of Arma i.e. Pterygium and can avoid considerable Astigmatism and Surgery. Pathologically it is a degenerative and hyperplastic condition of conjunctiva. Pterygium has its similarities with Arma based on its site of manifestations, clinical presentation and surgical method of management. In Ayurvedic classics various therapeutic procedures are explained which are said to improve the health of the eyes. Kriyakalpa is one of the special methods of drug administration locally into the eyes. Kriyakalpa includes Tarpan, Putpak, Aschyotana, Seka and Anjana. Lekhan Anjana is the treatment mentioned in Ayurvedic classics for Arma which is in early stage and thin membrane. The method of application of Anjana is very easy so patient can perform on its own. Pippalyadya Anjana is selected for study because ingredients are easily available and method of preparation is easy.

In this study it is seen that Pippalyadya Anjana is effective in Pterygium. Symptoms of Pterygium are foreign body sensation, redness etc. These symptoms are aggravated by bike travelling, exposure to wind, dust and sunlight. Pterygium is one of the most commonly found eye disease in society. In period of 21 days clinically signs and symptoms were significantly reduced. Effect of Pippalyadya Anjana and Flubigat eye drop provided significant relief in this study. No more side effects were observed in patients by Pippalyadya Anjana during the study.

KEYWORDS Arma, Pterygium, Anjana, Kriyakalpa

INTRODUCTION

Ayurveda is one of the ancient medical sciences. Ayurveda not only explain the diseases and their treatment but also explain how to prevent the diseases and live healthy life. Ayurveda has eight major components. Shalakya is one of them. Shalakya is concerned with the Urdhvajatrugata vikaras. This means diseases of parts of body which are above the clavicle which includes ear, nose, throat, head and eyes.

Eyes are the most important among the sensory organs. Vagbhatacharya says that as long as there is desire for living, so long efforts should be made always by men to protect the eyes, because for the blind man, night and day are the same.

In Ayurvedic Samhita Arma is described under Shuklagata Netra Roga. Arma is mamsa vridhi originating from Kaninika sandhi or Apang sandhi or from both towards the Drushtimandala causing loss of vision. There are five types of Arma which are Prastari, Shukla, Kshataj, Adhimans and Snayu. Arma can be correlated with the disease Pterygium which is a common degenerative condition of conjunctiva. It is a wing shaped fold of conjunctiva encroaching on cornea from either side within interpalpebral fissure (1) Inflammation of Pterygium gives pain, watering, redness and foreign body sensation, cosmetic intolerance, blurred vision, diplopia (2) in the eyes. Defective vision occurs when it encroaches the pupillary area or due to corneal astigmatism induced by fibrosis in regressive stage. Pathologically the subconjunctival tissue undergoes elastotic degeneration and proliferates as vascularized granulation tissue under epithelium, which ultimately encroaches the cornea. The corneal epithelium, superficial layer and stroma are destroyed. The exact etiology of Pterygium is unknown but it may be result of prolonged effect of environmental factors such as UV rays, dry heat, abundant dust etc. (3) There are two types of Pterygium Progressive and Regressive. Progressive is thick, fleshy and vascular having cap at the apex while Regressive is thin, pale and non-progressing. (4)

INGREDIENTS OF PIPPALYADYA ANJANA (5)

- | | |
|--------------|-----------------------|
| 1] Pippali | 5] Laksha churna |
| 2] Haritaki | 6] Lodhra tvak churna |
| 3] Bibhitaki | 7] Saindhav lava |
| 4] Amalaki | 8] Bhringaraj swaras |

MATERIAL AND METHODS

Open randomized control study done of 30 patients above the age 50 yrs were selected coming to OPD Bharati Ayurved Hospital for this pilot study. These were randomly divided into two groups Group A (Control Group)

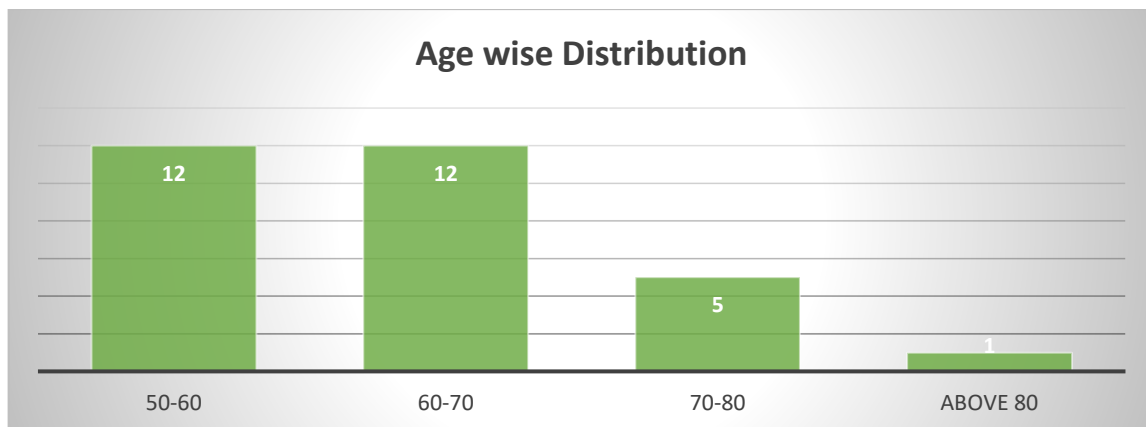


and Group B (Trial Group) of 15 patients each. One group was treated with Pippalyadya anjana and other with Flubigat eye drop. Follow up was taken on 1st, 7th, 14th, 21st day.

OBSERVATIONS

Age wise distribution

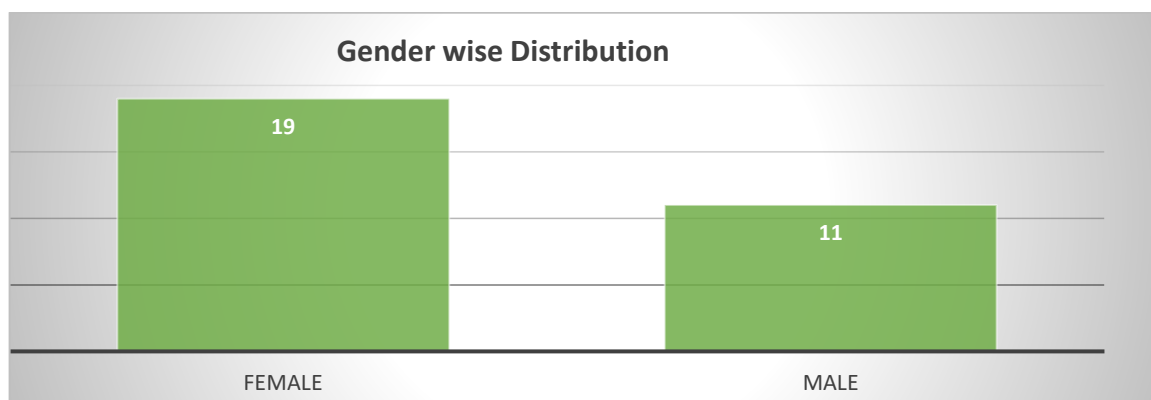
| Age | Group A | Group B | Total |
|--------------|-----------|-----------|-----------|
| 50-60 | 6 | 6 | 12 |
| 60-70 | 6 | 6 | 12 |
| 70-80 | 2 | 3 | 5 |
| Above 80 | 1 | 0 | 1 |
| Total | 15 | 15 | 30 |



Maximum number of patients found in the interval of 50-70yrs

Gender wise distribution

| GENDER | Group A | Group B | Total |
|--------------|-----------|-----------|-----------|
| Female | 10 | 9 | 19 |
| Male | 5 | 6 | 11 |
| Total | 15 | 15 | 30 |

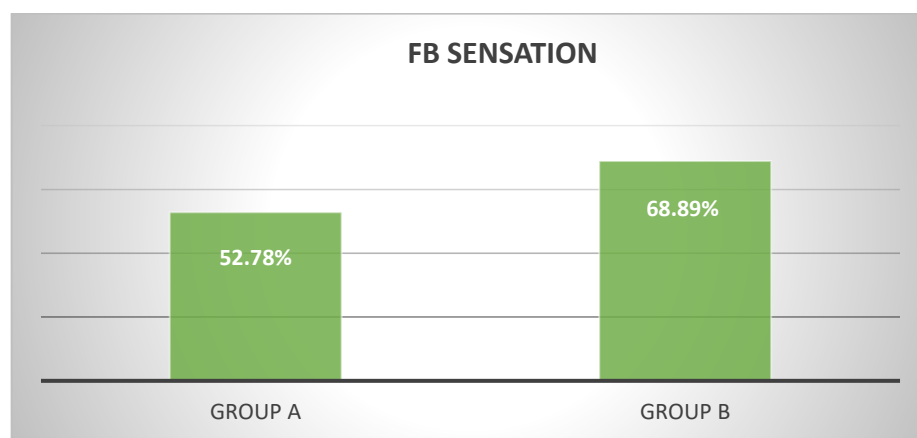


Maximum number of patients are females

**COMPARISON OF GROUP A AND GROUP B ON FB SENSATION**

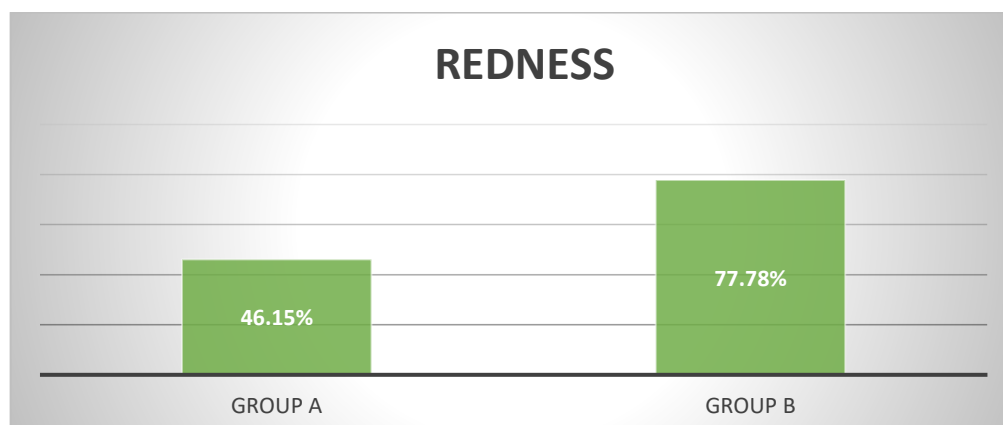
| FB SENSATION | %of improvement | Mann Whitney u | z value | p value |
|---------------------|------------------------|-----------------------|----------------|----------------|
| Group A | 52.78% | 98.5 | -1.32 | 0.18 |
| Group B | 68.89% | | | |

As $p \text{ value} > 0.05$ we found that there was statistically significant difference between Group A and Group B on foreign body sensation. Also as percentage of improvement seen from above table we get percentage of improvement in Group B was more than Group A hence we can say that Group B is more effective as compared to Group A on foreign body sensation.

**COMPARISON OF GROUP A AND GROUP B ON REDNESS IN ARMA**

| REDNESS | %of improvement | Mann Whitney u | z value | p value |
|----------------|------------------------|-----------------------|----------------|----------------|
| Group A | 46.15% | 49.5 | -3.28 | 0.001 |
| Group B | 77.78% | | | |

As $p \text{ value} < 0.05$ we found that there was no statistically significant difference between Group A and Group B on Redness. i.e. Group A was same effective as Group B on Redness. But as seen from above table we get percentage of improvement in Group B was more than Group A hence we can say that Group B is more effective as compared to Group A on redness

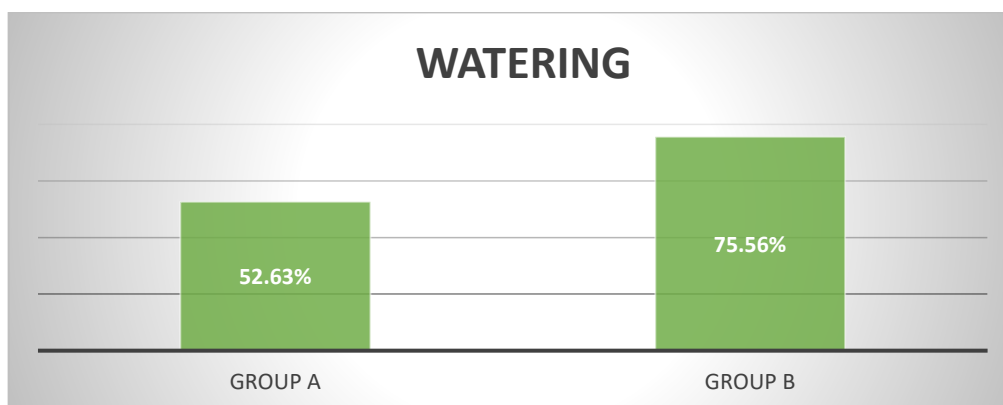




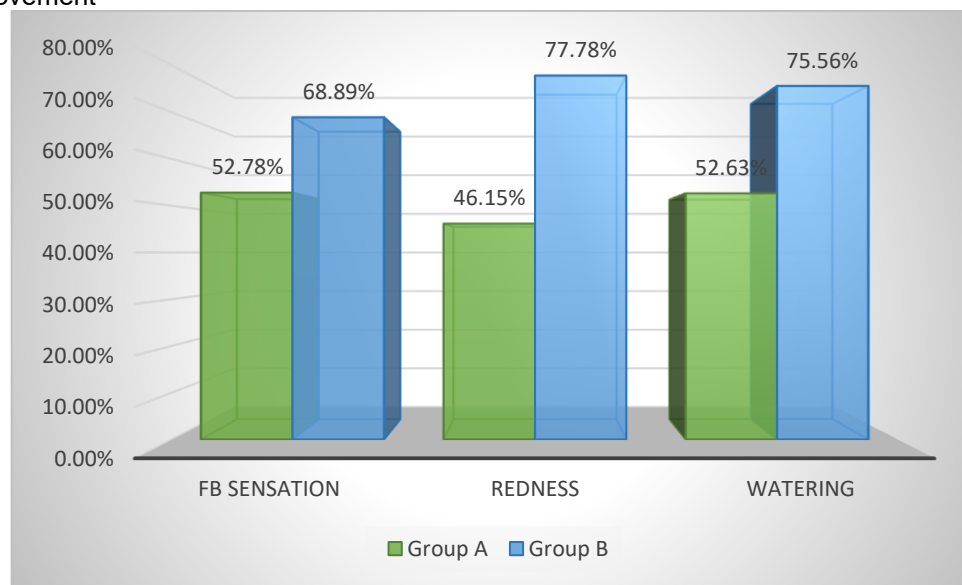
COMPARISON OF GROUP A AND GROUP B IN WATERING IN ARMA

| WATERING | %of improvement | Mann Whitney u | Z value | p value |
|----------|-----------------|----------------|---------|---------|
| Group A | 52.63% | 72 | -2.58 | 0.009 |
| Group B | 75.56% | | | |

As $p\text{ value} < 0.05$ we found that there was no statistically significant difference between Group A and Group B i.e Group A was same effective as Group B on watering. But as seen from above table we get percentage of improvement in Group B was more than Group A hence we can say that Group B is more effective as compared to Group A on watering.



Overall Improvement



From this diagram we get percentage of improvement in Group B was more than Group A hence we can say that Group B is more effective as compared to Group A on all parameters in Arma W.S.R. To Pterygium.

DISCUSSION

In the above study it is seen that Pippalyadya Anjana is effective in Arma. Symptoms of Arma are Foreign body sensation, Redness and Watering. All these symptoms are aggravated by exposure to wind, dust and sunlight. Pterygium is one of the most commonly found eye disease in society. Pippalyadya Anjana is an Ayurvedic preparation to be used as local application (Anjana Chikitsa).

The incidence of Pterygium was observed higher in all age group. Majority of patients were having the farmer as an occupation because they are more exposed to dust, dirt etc.



Pippalyadya Anjana is an Ayurvedic preparation used topically in Arma.

Medicine used for Anjana was prepared per reference of Yogratnakar Samhita. The effect of Pippalyadya Anjana and flubigat eye drop provided significant effect in this study. No significant side effects were seen in whole study in both groups. The ingredients used in formulation of Trial group are cost effective and easily available. Clinically sign and symptoms of Arma were reduced in both trial and control group in 21 days. The incidence of Arma was observed higher in age group 50 to 70 years. It is probably because more exposure to sunlight, dust due to outdoor work which causes inflammatory reaction.

Out of 15 patients in Trial group 10 (63.00%) were female and 5 (37.00%) were male. Out of 15 patients in control group 9 (46.7%) were female and 6 (53.3%) were male. These females are more affected possibly due to more exposure to sunlight and dust.

In control group and trial group all 15 patients got relief. In trial group symptoms may get reduced due to Kashaya Rasa, Sheeta Virya, Pitta hara karma of Trial group.

In control group and Trial group all 15 patients got relief from the symptom of redness. This may have reduced due to Kashaya rasa, ruksha guna and kapha shamak karma of Pippalyadya Anjana.

In both groups patient got relief from watering symptom. In Trial group this symptom may have reduced due to Kashaya rasa, Ruksha guna and kapha shamak karma of Pippalyadya Anjana.

Pippalyadya Anjana-

It has Tridishaghna property which is also overall confirmed by the pharmacodynamics of formulation.

Rasa -Kashay, Katu, Tikta

Guna-Ruksha, Laghu

Vipak-Madhur, Katu

Veerya-Sheet, Ushna

Doshaghna - Kapha, Pitta and Vata shamak

Probable mode of action -

Pippalyadya Anjana has kaphashamak property due to kashay, katu rasa; laghu, ruksha guna; katu, tikta vipak and ushna virya of drugs. This action causes decrease in symptoms of Arma which are Foreign body sensation (Tod), Redness (Araktata) and Watering (Strav).

CONCLUSION

The entire review of Ayurvedic as well as modern literature on Pterygium and Arma revealed that the features of Arma are closely related to Pterygium. This study has proved that Pterygium can be managed with conservative line of treatment during its initial stages as mentioned in Ayurvedic classics and thus can be practiced in its present era with utmost confidence. Overall relief provided by Pippalyadya Anjana was as good as Flubigat eye drop. Trial group drug is as effective as control group drug. No adverse effects were found after application of Anjana. Pippalyadya Anjana can be used as conservative line of treatment in Pterygium.

Pippalyadya Anjana is proved to be safe drug and cost effective as all its ingredients are easily available. Pippalyadya Anjana has significant effect in reducing the symptoms of Pterygium 21 days. No side effects of drug were observed during the course of study.

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