

**TO EVALUATE THE ROLE OF NIMBA PATRA SWARAS  
ASCHYOTANA IN THE MANAGEMENT OF KAPHAJA  
ABHISYANDA WSR MUCOPURULENT CONJUNCTIVITIS**

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Article Received on  
28 Oct. 2019,

Revised on 18 Nov. 2019,  
Accepted on 08 Dec. 2019,

DOI: 10.20959/wjpr20201-16444

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**ABSTRACT**

Kaphaja Abhisyanada is described as Sarvagata Vyadhi affecting all parts of eye. It characterized by kandu, Guruta, Upadeha, Pichchil Srava, Soph etc. Based of clinical features Kaphaja Abhisyanada can be correlated with Mucopurulent Conjunctivitis. It is type a of bacterial Conjunctivitis and acquired through direct contact with an infected person. It is highly Contagious and common cause of red eye. Kaphaja Abhisyanada (Mucopurulent Conjunctivitis) is a communicable disease; it is a major public concern in the rural areas of developing countries particularly in india. Treatment is needed in this disease to reduce the morbidity, and person to person spread. Objective of the present study was to evaluate the role of Nimba Patra Swaras Ashchyotana in the

management of Kaphaja Abhisyanada. 24 patients fulfilling the inclusion criteria of Kaphaja Abhisyanada, were randomly selected O.P.D and I.P.D of Ashwini Ayurvedic Medical Collage Hospital and Research Center, Ring Road, Maralur Tumkur. Ashchyotana was done 2 drops to each eye at the regular interval of 4 hours daily for a period of seven days. Clinical signs and symptoms were given with suitable scores according to their severity and assessed based on relief after treatment. Overall effect of therapies after 7 days of treatment was 55.25% in which it showed marked improvement 8.34%, Moderate 16.67%, Mild 62.25% and no change in 12.5%. Nimba Patra Swaras Ashchyotana has significant effect in the management of Kaphaja Abhisyanada and it is proved to be cost effective, safe and better drug for Ashchyotana in Kaphaja Abhisyanada (Mucopurulent Conjunctivitis).

**KEYWORDS:** Abhishyanda; Nimba Patra swaras; Ashchyotana; Mucopurulent Conjunctivitis.

## INTRODUCTION

The importance of eyes was under scored in Ayurveda by quoting eye as the most important of all organs: “Sarvendriyanam nayanam pradhanam” i.e. eyes hold special status among all the sense organs. Eyes are the most precious gift of the god to the living being. Good vision is crucial for social and intellectual development of a person. Its loss of function leads serious disability of man by keeping him in the darkness. Life without eyesight is miserable and valueless. Hence it is very important to protect vision from serious diseases.

Abhishyanda is described as sarvagata vyadhi affecting all parts of the eye. The term “Sarvagat” generally refers to all the mandals, Sandhis and also intra ocular structures. Generally all kinds of netra roga due to Abhishyanda. Thus the physician should treat abhishyanda vyadhi first. Kaphaja Abhishyanda, a sarvagata disease of eye<sup>[1]</sup> which is characterized by heaviness and itching in eyes, sticking of eye lids, matting of eye lashes and thick slimy copious mucopurulent discharge.<sup>[2]</sup> The causative factors of Kaphaja Abhishyanda include dhooma, raja, variation in seasons, unhygienic conditions and irregular sleeping habits.<sup>[3]</sup> According to Acharya Sushruta, Abhishyanda is the main reason of all eye diseases and is considered as Aupasargika roga.<sup>[4]</sup> If the disease is untreated it leads to many serious complications like Adhimantha, Akshipakatyaya, Avrana shukla etc and even loss of vision.<sup>[5]</sup> Based on the aetiology, clinical signs and symptoms it can be correlated to mucopurulent conjunctivitis.<sup>[6]</sup> Mucopurulent Conjunctivitis is a type of bacterial Conjunctivitis and in developing country like India it is more prevalent. Prevalence of bacterial conjunctivitis is found to be 68.1%. Affection of both eyes due to conjunctivitis is 51.7%. Conjunctivitis among rural residents which are 34.66%. Conjunctivitis among male is found to be 59.4% whereas it is 40.6% among female.<sup>[7]</sup> Its common occurrence debilitating morbidities. It is a global economic burden. The bulk of Conjunctivitis related cost include physician consult, supportive care, prescription drugs, diagnostic tests and productivity losses associated with time, away from work or school. For treatment of Mucopurulent Conjunctivitis use of antibiotics is often unnecessary as bacterial infection are self limiting and complications are rare; overutilization of antibiotics resistance and expose patient to drug related typical allergic and toxicity antibiotic resistance is a growing problem.

In Ayurveda Snehana, Mridu svedana, Siravyadhana, Virechana and Netra Kriyakalpas like Ashchyotana, Seka and Anjana are mentioned in the treatment of Abhishyanda.<sup>[8]</sup> Out of these Ashchyotana is a simple procedure, which is indicated in the initial stage of eye diseases. Tikta rasa, Ushna, Teekshna dravya Ashchyotana is advised in Kaphaja Abhishyanda.<sup>[9]</sup> In classics we get various references regarding the use of Nimba in different forms for Netra Vikaras and also in abhishyanda. Nimba are categorized under Chakshushya gana and has krimighna, Kandugna & swedopag properties.<sup>[10]</sup> Nimba patra swaras are widely used as folklore medicine in the treatment of Netra rogas.

### **MATERIAL AND METHODS**

The patients of Kaphaja Abhishyanda attending the O.P.D and I.P.D of Shalaky tantra, Ashwini Ayurvedic Medical College, Hospital and research centre Tumkur, were selected for this study irrespective their sex, caste and socio economical status. The patients were examined in detail as per special proforma which includes both Ayurvedic and modern methods of examination of patients prepared for this purpose. They were further subjected to following criteria of diagnostic inclusion and investigations to reach the final diagnosis. All the patients Selected for trial were explained the nature of the study and their written informed consent was obtained.

### **ETHICAL CLEARANCE**

The topic of the study together with the case proforma was submitted to the institutional ethical committee of Ashwini Ayurvedic Medical College and Research Center, tumkur. The significance, aims and objectives, Methodology and probable result of study were clarified to the committee and ethical clearance was obtained for study.

### **Diagnostic Criteria**

The diagnosis is mainly based on the Clinical features of Kaphaja Abhishyanda (Mucopurulent Conjunctivitis) such as,

- Kundu
- Gurutha
- Srava
- Upadeha
- Sopha

**Inclusion Criteria**

Patients aged above 18 years with classical features of Kaphaja Abhishyanda such as Kandu (itching), Gurutha (heaviness in eyelids), Srava (mucopurulent discharge), Upadeha (sticking together of lid margins with discharge during sleep), Sopha (mild oedema of eyelids) with duration less than 1 month were selected.

**Exclusion Criteria**

- Patients aged below 18 years & above 50 years.
- Duration of disease more than 1 month.
- Patients having symptoms of Vataja, Pittaja, Raktaja Abhishyanda, Puyalasa and Sandhigata rogas.
- Abhishyanda associated with other ocular and systemic diseases.

**Assessment Criteria**

- Self formulated grading scale (which is peer reviewed) was prepared and assessed on the basis of improvement in signs and symptoms.
- Assessed with subjective and objective parameters for Kaphaja Abhishyanda (Mucopurulent Conjunctivitis) before and after the treatment with appropriate statistical method.

**Subjective Parameter**

- Kundu
- Gurutha
- Srava
- Upadeha
- Sopha

**Objective Parameter**

- Cytology and Bacteriological examination of conjunctival secretion.

**LABORATORY INVESTIGATION**

- Blood for TC (total count), DC (differential count), ESR (erythrocyte sedimentation rate) and AEC (absolute eosinophil count).
- Cytology and bacteriology examination of conjunctival secretion (Staphylococcus aureus) before and after treatment in selected patients.

### Method of preparation of Nimba patra swaras

The fresh and tender leaves of Nimba (*Azadirachta Indica*) cleaned well, pounded and the resultant paste is rolled in to a bolus, squeezed through a clean cotton cloth and the expressed fresh juice is collected in a clean container.

### Duration of the study

The patients were instilled two drops of Nimba patra Swaras Ashchyotana in each eye and repeated at the interval of four hours during day time for a period of seven days, follow up was done after 7 days of interval. Changes or progress were recorded periodically. The routine diet was advised to the patients during the treatment. No other medicine was given internally and externally.

### CRITERIA FOR ASSESSMENT OF TREATMENT

Assessment was based on relief found in the clinical signs and symptoms of the disease. For this purpose main clinical signs and symptoms were given with suitable scores according to their severity before, during and after treatment. Following symptoms were assessed

### GRADATION INDEX

To give some objectivity to the symptoms for the statistical analysis grading was assigned as shown in table-1.

**Table No 1: Self made scoring scale.**

NO	SUBJECTIVE PARAMETER		GRADING
1	KANDU	NORMAL	0
		MILD	1
		MODERATE	2
		SEVERE	3
2	GURUTHA	NORMAL	0
		MILD	1
		MODERATE	2
		SEVERE	3
3	SRAVA	NORMAL	0
		OCASSIONAL	1
		INTERMITTANT	2
		CONTINIOUS	3
4	UPADEHA	NORMAL	0
		MILD STICKING OF EYE LASH	1
		MODERATE STICKING OF EYE LASH	2
		SEVERE STICKING OF EYE LASH	3

5	SOPHA	NORMAL	0
		MILD	1
		MODERATE	2
		SEVERE	3
OBJECTIVE PARAMETER			
1	CYTOLOGY AND BACTERIOLOGY EXAMINATION OF CONJUNCTIVAL SECRETION	ABSENT	0
		PRESENT	1

### CRITERIA FOR ASSESSMENT OF OVERALL EFFECTS

Overall effect of the therapy was assessed in terms of complete remission, marked improvement, moderate improvement, and mild improvement and unchanged is observed by adopting the following criteria.

- **Complete remission:** 100% relief in Chief complaints and no recurrence during follow up study were considered as complete remission.
- **Marked improvement:** 75–100% improvement in chief complaints is recorded as marked improvement.
- **Moderate improvement:** 50-75% improvement in chief complaints is recorded as moderate improvement.
- **Mild improvement:** 25-50% improvement in chief complaints is considered as mild improvement.
- **Unchanged:** Less than 25% reduction in chief complaints or recurrence of the symptoms to the similar extent of severity is noted as recurrence.

### OBSERVATION AND RESULTS

Total 30 patients were registered in this study. Out of that 24 patients were studied in this project and 6 have left in between due to their personal family issue reason. Each patient was observed thoroughly and noted neatly. The observations are recorded and necessary table and graphs were made.

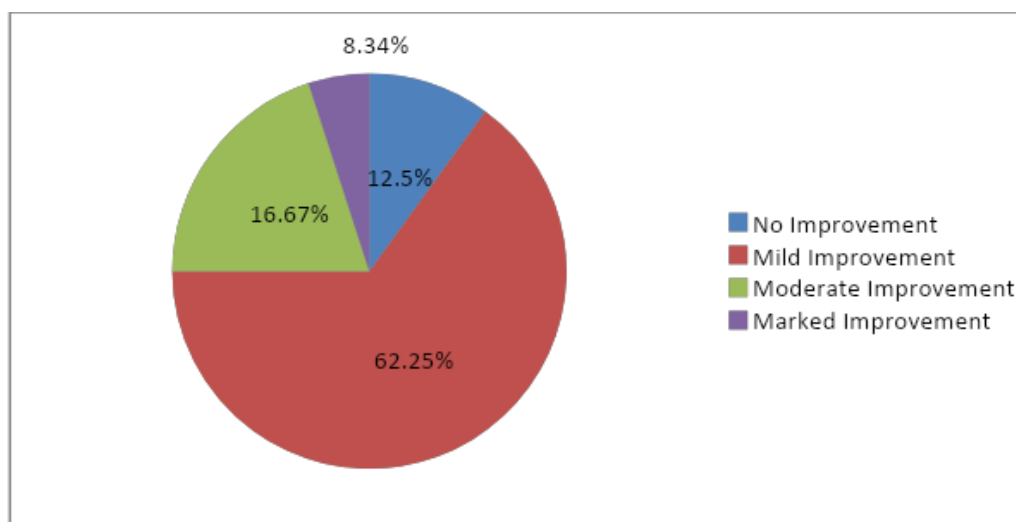
The percentage of improvement in Kandu is 56.57%, Gurutha is 47.36%., Srava is 58.82%, Upadeha is 66.67%, Sopha is 46.87% and Bacteria is 55.56%.

Table no 2.

Characteristics Signs and Symptoms	Nimba Patra Swaras		
	Mean score		Percentage of relief
	BT	AT & FU	
KANDU	1.52	0.86	56.57
GURUTHA	1.90	0.90	47.36
SRAVA	1.70	1.00	58.82
UPADEHA	1.80	1.20	66.67
SOPHA	1.60	0.75	46.87
BACTERIA	0.45	0.25	55.56

Table No 3: Overall effect of Nimba Patra swaras.

EFFECT OF TREATMENT		
Class	Grading	No of patients
0-25%	No Improvement	2
26% -50%	Mild Improvement	13
51% - 75%	Moderate Improvement	4
76% - 100%	Marked Improvement	1



Graph no 1: Overall effect of Nimba Patra swaras.

Consideration of overall effect of therapy after 7 days of treatment showed that Marked improvement was found in 8.34%, Moderate improvement was found in 16.67%, Mild Improvement 62.25% and No improvement was in 12.5%. Ashchyotana with Nimba Patra Swaras Ashchyotana rendered statistically significant relief in all the symptoms of Kaphaja Abhishyanda. Out of 24 patients 2 patient has shown Marked improvement, 4 Moderate improvement, 15 mild improvement and Only 3 Patients were remained unchanged. It is evident from the fact that none of the patients of group A was reported to have aggravation of any of the symptoms during the course of treatment or during follow up.

## DISCUSSION

Nimba patra swaras Aschyotana is selected for the present clinical study. Nimba possess antibacterial, antifungal, anti-inflammatory antiviral property etc. Ashchyotana is done in a lesser dose (two drops). It enhances the absorption of the drug and its residence time. It would be an ideal line of management. Ashchyotana is a Netra Kriya Kalpa where the drug is instilled into the eyes. It is effective in Ruk, Toda, Kandu, Srava and Raga. It has direct action on the ocular tissues especially on conjunctiva, so it is useful in conjunctival disorders. It flushes out debris and bacteria and reduces the matting of eye lashes. It increases the local circulation, therefore it reduces oedema. Nimba possess Tikta rasa, Ushna, Teekshna, Rooksha, Chakshushya and Krimighna guna those help to counteract the Kapha vitiation. Nimba having antibacterial, antifungal, anti Inflammatory properties. nimba are rich source of Vit A, Vit C which is used as supplements to combat the symptoms of conjunctivitis. Vitamin A reduces infection; Vitamin C strengthens the defence mechanism. The overall effect of Nimba patra swaras ashchyotana on subjective parameters was 55.25% and in objective parameter it was 55.56%. It proved significant statistically.

## CONCLUSION

In the present clinical study, 24 patients presenting with the features of Kaphaja Abhishyanda were studied; Aschyotana is the preferred mode of application when considering the dose maintenance, easy and safe administration. Out of 24 patients, 1 patient showed marked improvement, moderate improvement was observed in 4 patients, mild improvement was observed in 13 patients and 2 patients were remained unchanged. Nimba patra swaras aschyotana gave Moderate results in the clinical features like Kandu, Guruta, shopha, Updeha & pichchila srava. Out of 24 patients in Over All Therapy, Redness and Burning Sentation were observed during the study formulation. Hence Nimba patra swaras aschyotana it is a safe, economical and procedure is easy to perform and nimba proved to be cost effective, safe and better drug for Ashchyotana in Kaphaja Abhishyanda.

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