



RESEARCH ARTICLE

DOI: <http://dx.doi.org/10.14259/av.v1i1.123>

Management of *Pittaj Abhishyanda* (Acute Muco-Purulent Conjunctivitis) by 'Nimb-Lodhra Ashchyotan' (Topical Instillation)

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Article Info: Received: May 4th, 2014; Accepted: July 19th, 2014

ABSTRACT

Conjunctivitis is commonly caused by an allergic reaction or an inflammation either caused by bacteria or virus. It is further classified as infective and non-infective types. Acute muco-purulent conjunctivitis that belongs to family of bacterial conjunctivitis is a contagious disease, which if remains untreated lead to corneal ulceration that further cause complications such as permanent opacity ending up in blindness. The conventional line of treatment includes topical antibacterial eye drops instillation along with systemic anti biotic and anti-inflammatory drugs. However, overuse of these antibiotics lead to resistance to the drugs making them in effective. So the need of alternative approaches is a need of the hour. From an Ayurvedic perspective, due to similarity in clinical features, the disease *Pittaj Abhishyanda* can be safely compared to muco-purulent conjunctivitis. As Acharya Vagbhat has given prime importance to 'Ashchyotan therapy' (topical instillation) in all eye diseases, we decided to use and prove efficacy of 'Nimb-Lodhra Ashchyotan' (topical instillation) in the management of *Pittaj Abhishyanda* with respect to acute muco-purulent conjunctivitis. The study proves immense potential for reduction of symptoms such as *Netra daha* (burning of eyes), *Netra lalima* (congestion), *Kleda* (mucopurulent discharge), *Netra toda* (pain and foreign body sensation in eye) etc.

Keywords: Muco-purulent Conjunctivitis, *Pittaj Abhishyanda*, *Ashchyotan karm*

Introduction

Conjunctivitis is an inflammation of the conjunctiva most commonly caused due to an allergic reaction or an inflammation caused by either a bacteria or virus. Depending on the nature of the cause, conjunctivitis could be infective or non-infective. A classification called 'mucopurulent conjunctivitis' is the most common type of acute bacterial conjunctivitis characterized by marked conjunctival hyperemia and mucopurulent discharge from the eye. The conventional treatment includes topical Antibiotic instillation (eye drops), irrigation of conjunctival sac with sterile warm saline along with systemic Anti-inflammatory and application of analgesic drugs [1, 2]. However, over use of these topical drugs forms drug resistance. Furthermore, mucopurulent conjunctivitis can cause corneal involvement leading to corneal ulceration and

may leave a permanent opacity landing the patient with blindness if not treated properly.

The disease *Pittaj Abhishyanda* can be compared with mucopurulent conjunctivitis due to similarity in clinical features like burning of eyes, congestion of eyes, pain and foreign body sensation, swelling of eye lids, mucopurulent discharge and photophobia etc.

Further, Sushruta has cautioned *Abhishyanda*, can be manifested as a result of contagious etiology and disease spread from one person to other person through air, close contacts etc [3].

The management of this condition is based on various measures in Ayurveda like *Aschyotana* (topical instillation), *Putpaka-Bidalaka* (External poultices) etc. carried out with the help of different medicinal plants according to demand with respect to the predominance of various etiological factors [4,5].

However, Vagbhat has given prime importance to 'Ashchyotan

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therapy' (topical instillation) & advocated to do *Ashchyotan karm* in all *netra roga* (eye diseases) [6].

Hence, we decided to study the safety and efficacy of 'Nimb-Lodhra Ashchyotan' (topical drop instillation), having Pittagna (Pitta pacifying) properties, in the management of Pittaj Abhishyanda w.s.r. to Acute muco-purulent conjunctivitis. The study showed excellent result in reducing symptoms like *Netra daha* (burning of eyes), *Netra lalima* (congestion), *Kleda* (mucopurulent discharge), *Netra toda* (pain and foreign body sensation in eye) etc.

Materials and Methods

Title of Study: To study the safety & efficacy of 'Nimb-Lodhra Ashchyotan' (topical instillation) in Pittaj Abhishyanda w.s.r. to mucopurulent conjunctivitis.

Type of Study: Open, Randomized, Non comparative Prospective study

Place of Study: Dr.D.Y.Patil Ayurvedic Hospital, Navi Mumbai, India

Subject recruitment: Patients selected from *Shalya-Shalakya Tantra* Department. **Total number of patients:** 30

Criteria for selection of patients:

Patients were diagnosed clinically on the basis of symptoms described in classical and modern text.

Inclusion Criteria

1. Age group: 18 to 50 years.
2. Irrespective of sex.
3. The patients presenting signs and symptoms of Pittaj Abhishyanda (muco purulent conjunctivitis).

Exclusion Criteria

1. Age below 18 years and above 50 years.
2. Patients who need surgical and other intervention.
3. Patients suffering from trachoma, dacrocystitis & subconjunctival hemorrhage.
4. Patients suffering from HIV & Bleeding disorder.
5. Patients not willing for trial.

Materials:

Drug Information:

'Nimb-Lodhra' Ashchyotan (topical drop instillation) [7]

Contents: 1. *Nimb* – *Azadiracta indica*
2. *Lodhra*- *Symplocos racemosa* Roxb

Method of preparation:

'Nimb-Lodhra Ashchyotan' - 50gm *Lodhra twak* (bark) and 50gm *Nimba* leaves crushed with 100ml water and made into the paste. Then the paste was heated a bit and made warm, then the mixture was taken in a clean cloth and squeezed, the drops

obtained were used for *Aschyotan karm* (topical instillation).

Dose & Duration: Instillation of 12 drops of drug from the distance of 2 *Angula* (aprox.4 cm.) for 10 days at *Kaninika Sandhi* (medial canthus)

Methodology:

Parameters for clinical assessment:

The result has been assessed in regard to clinical signs and symptoms.

Clinical Assessment

Following were the major complaints received from most patients:

1. *Netra daha* (burning sensation of eyes)
2. *Netra lalima* (congestion)
3. *Netra shopha* (eye lid swelling)
4. *Kleda* (muco purulent discharge)
5. *Prakash asahatwa* (photophobia)
6. *Netra toda* (pain and foreign body sensation in eye)

Assessment criteria:

Assessment criteria were carried out with the following gradation scale:-

1. *Netra daha* - (Burning sensation)
 - a. Absent
 - b. Mild (one to two episodes per day)
 - c. Moderate (present intermittently throughout the day)
 - d. Severe (present throughout the day)
2. *Netra Lalima* - (congestion)
 - a. Absent
 - b. Mild (restricted to palpebral conjunctiva)
 - c. Moderate (restricted to palpebral and bulbar conjunctiva)
 - d. Severe (involving palpebral, bulbar and fornix conjunctiva)
3. *Netra shopha* - (eye lid swelling)
 - a. Absent
 - b. Mild (restricted to upper or lower eyelid)
 - c. Moderate (restricted to both eye lids)
 - d. Severe (involving both eye lid and palpebral conjunctiva)
4. *Kleda* - (Mucopurulent discharge)
 - a. Absent
 - b. Mild (during day time)
 - c. Moderate (during day and evening)
 - d. Severe (throughout day and night time.)
5. *Prakash asahatwa* - (photophobia)
 - a. Absent
 - b. Mild (present during day time)
 - c. Moderate (during day and evening)
 - d. Severe (throughout day and night)
6. *Netra Toda* - (Pain and Foreign body sensation)
 - a. Absent
 - b. Mild (during morning time)

c. Moderate (during morning and evening)

d. Severe (throughout the day and night)

Results were drawn from overall statistical analysis:

The obtained results are measured according to the following grades:

Total relief : 100%

Excellent relief : 80% - 100%

Good relief : 60% - 80%

Moderate relief : 40% - 60%

Mild relief : 20% - 40%

Not significant : 0% - 20%

Observations and Results

1. Incidence of Symptoms: Among 30 patients of *Abhishyanda*, 30 (100%) of patients had *Netra Daha*, 30 (100%) of patients had *Netra Lalima*, 27 (90%) of patient had *Netra Shopha*, 30 (100%) patients had *Kleda strava*, 24(80%) of had *Prakash Ashatva* and 27 (90%)of patient had *Netra Toda*.

2. Effect of Therapy:

Among 30 patients of study group, 93.42% relief was found in *Netra Daha* (burning of eyes). 92.10% relief was found in *Netra Lalima* (congestion). 38.46% relief was found in *Netra Shopha* (eye lid swelling). 78.66% of relief was found *Kleda strava* (mucopurulent discharge). 17.24% relief was found in *Prakash Ashatva* (photophobia). 63.49% relief was found in *Netra Toda* (pain and foreign body sensation in eye).

Table 1: Incidence of Symptoms in Patients

Sr. no.	Symptoms	No. of Patients	%
1	<i>Netra Daha</i>	30	100 %
2	<i>Netra Lalima</i>	30	100 %
3	<i>Netra Shopha</i>	27	90 %
4	<i>Kleda</i>	30	100 %
5	<i>Prakash Ashatva</i>	24	80 %
6	<i>Netra Toda</i>	27	90 %

Table 2: Effect of Therapy on Symptoms

Sr. no.	Symptoms	BT	AT	Difference	% of Relief
1	<i>Netra Daha</i>	76	71	05	93.42%
2	<i>Netra Lalima</i>	76	70	06	92.10%
3	<i>Netra Sopha</i>	52	20	32	38.46%
4	<i>Kleda</i>	75	59	16	78.66%
5	<i>Prakash Ashatva</i>	29	05	24	17.24%
6	<i>Netra Toda</i>	63	40	23	63.49%

3. Statistical Analysis:

1) *Netra Daha* : Sum of all signed ranks was 465. The number of pairs were 30. Z value was 4.78 , which was statistically very highly significant, $P < 0.0001$

2) *Netra Lalima* : Sum of all signed ranks was 465. The number of pairs were 30. Z value was 4.78 , which was statistically very highly significant, $P < 0.0001$

3) *Netra Sopha* : Sum of all signed ranks was 190. The number of pairs were 19. Z value was 9.356 , which was statistically very highly significant, $P < 0.0001$

4) *Kleda* : Sum of all signed ranks was 465. The number of pairs were 30. Z value was 4.78 , which was statistically very highly significant, $P < 0.0001$

5) *Prakash Ashatva* : Sum of all signed ranks was 15. The number of pairs were 05. Z value was 2.02 , which was statistically insignificant, $P = 0.0625$

6) *Netra Toda* : Sum of all signed ranks was 276. The number of pairs were 23. Z value was 4.19 , which was statistically very highly significant, $P < 0.0001$

Effect of Therapy

After the administration of 'Nimb-Lodhra Aschyotan' reveals the following points.

1. 93.42% relief was found in *Netra Daha* (burning of eyes) Statistically it is significant.

2. 92.10% relief was found in *Netra Lalima* (congestion) . It is statistically significant.

3. 38.46% relief was found in *Netra Shopha* (eye lid swelling). It is statistically significant.

4. 78.66% of relief was found *Kleda strava* (muco purulent discharge). It is statistically significant.

5.17.24% relief was found in *Prakash Ashatva* (photophobia). Statistically it is significant.

6. 63.49% relief was found in *Netra Toda* (pain and foreign body sensation in eye). It is statistically significant.

7. Total effect of therapy: Among 30 patients, 01(3.33%) of patient had excellent relief, 19(63.33%) of patient had good relief, 10(33.33%) of patient had moderate relief.

Table 3: Analysis by Wilcoxon match paired sign rank test

Sr. no.	Symptoms	Mean	S.D.	S.E.	P value
1	Netra Daha				
	BT	2.533	0.5074		
	AT	0.1667	0.3790	0.09264	<0.0001
2	Netra Lalima				
	BT	2.533	0.5713	0.1043	
	AT	0.2333	0.4302	0.07854	<0.0001
3	Netra Shophha				
	BT	1.733	0.7849	0.1433	
	AT	1.067	0.7397	0.1350	<0.0001
4	Kleda				
	BT	2.500	0.5085	0.09285	
	AT	0.5333	0.6814	0.1244	<0.0001
5	Prakash Ashatwa				
	BT	0.9667	0.6149	0.1123	
	AT	0.8000	0.6103	0.1114	0.0625
6	Netra Toda				
	BT	2.100	0.9595	0.1752	
	AT	0.7667	0.6789	0.1240	<0.0001
	Diff	1.333	1.028	0.1877	

Table 4: Overall percentage of improvement/Relief in Patients

Total effect of therapy	No. of Patient	% of Relief
Total relief	00	00%
Excellent relief	01	3.33%
Good relief	19	63.33 %
Moderate relief	10	33.33%
Mild relief	00	00%
Not significant	00	00 %

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Conclusion

In nut cell, it can be conclude that owing to the similarity in clinical features disease, *Pittaj Abhishyanda* in Ayurveda can be compared to muco-purulent conjunctivitis in modern medicine. 'Nimb-Lodhra Ashchyotan' (topical instillation) has shown good results in most of *Pittaj Abhishyanda* such as *Netra Daha* (burning of eyes), *Netra Lalima* (congestion), *Netra Shophha* (eye lid swelling), *Prakash Asahatwa* (photophobia), *Kleda* (muco purulent discharge) and *Netra Toda* (pain and foreign body sensation in eye). The treatment was very effective; 30 patients, 01 (3.33%) of patient had excellent relief, 19 (63.33%) of patient had good relief and 10 (33.33%) of patient had moderate relief. There is a good scope for further study: Effect of 'Nimb-Lodhra Ashchyotan' without any oral medication has shown better results effect in *Pittaj Abhishyanda* with respect to muco-purulent conjunctivitis. If administered with oral medication and with *pathyakarak aahara vihaar* i.e salutary life style and good food habits better results could be achieved. However, as the sample size was small the obtained results can't be generalized and needs further elaborate study.

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