

Study of Effectiveness of Bilvadi Preparations in Vataja Abhishyanda-Simple Allergic Conjunctivitis By Microscopic-Cytological Examination

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Abstracts: Background: In the era of Modern Medicine, it is of vital importance to find objective evidences in treatment of any disease by Ayurvedic treatment modalities and thereby making it more acceptable to affected patients. Occurrence of Vataja Abhishyanda – Simple Allergic Conjunctivitis is very common in this era of urbanisation. Distressing signs and symptoms may cause extreme discomfort to the patient and it can disturb routine life. So to find a curative treatment rather than symptomatic one is the need of the hour. This study was carried out on that goal and to study the effectiveness of treatment modalities prescribed by ancient acharyas in the management of Vataja Abhishyanda. Objectives: To study effectiveness of Bilvadi Yoga preparations in Vataja Abhishyanda and prove its effectiveness by objective techniques like cellular study. Method: Present study was carried out in Department of Shalakyatanta, I. P. G. T. & R. A., Jamnagar during the period of May '09 to Jan '10. Bilvadi Ashchyotana and Eye drops are used for the treatment and the objective assessment was done by Absolute Eosinophils Count (AEC), carried out before and after the treatment to know the status of eosinophils in blood, and conjunctival smear examination was carried out. Results and Conclusion: Unpaired 't' test shows that in AEC, both of therapies gave almost equal result. Conjunctival smear examination had also shown significant to highly significant result ($p < 0.001$). [Udani J NJIRM 2017; 8(5):86-88]

Key Words: Vataja Abhishyanda, Bilvadi Yoga, Ashchyotana.

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Introduction: With increasing rate of the pollution in the atmosphere, changing life style and decreasing immunity some diseases are occurring rampantly. Amongst them, Vataja Abhishyanda or Simple Allergic Conjunctivitis is very common. Good number of patients attending O.P.D. of the Shalaky department for the treatment of the Simple Allergic Conjunctivitis. (prevalence: 5-22% of the general population and Recurrence in 41- 62% cases)¹

Signs and symptoms of Simple Allergic Conjunctivitis, like watery discharge, itching, hyperemia, chemosis, pricking pain and foreign body sensation are quite similar to the signs and symptoms of the disease Vataja Abhishyanda. Exposure to allergens like dust, smoke, pollens, dandruff etc. is giving immediate reaction. Avoidance of the allergen is quite difficult. So distressing signs and symptoms may cause extreme discomfort to the patient and it can disturb patient's routine life.

Keeping all these points in mind and to find out an economical remedy and to prove its effectiveness not only by symptomatic relief but also by reduction in affected cellular counts, mainly eosinophils, for Vataja Abhishyanda - Simple Allergic Conjunctivitis, Bilvadi Yoga was selected. It has been used in two

formulations – Bilvadi Ashchyotana and Bilvadi Eye Drops.

Acharya Sushruta has recommended 'Kriyakalpa' for the management of Vataja Abhishyanda, along with other forms of treatment. Ashchyotana is most important Kriya Kalpa applied on all the eye diseases in initial stage. But it is time consuming procedure compare with Today's busy life style. Eye Drops formulation is most common form of local drug use in ophthalmic practice. It is beneficial to the patients when considering the dose maintenance, easy and safe administration. So in this present study Ashchyotana formulation and Eye Drops formulations has been selected to know whether modified method eye drops can adopt in place of Ashchyotana formulation by considering convenience of the patients in Vataja Abhishyanda – Simple Allergic Conjunctivitis.

²Bilvadi Yoga is given in the management of Vataja Abhishyanda. It contains Bilvadi Panchamoola, Eranda, Brihati, Tarkari and Madhu Shigru. So a combination of these drugs, in the form of Ashchyotana and Eye Drops, are used and then effectiveness was studied by conjunctival smear examination and Absolute Eosinophil counts.

Objectives: 1. Study of effectiveness Bilvadi preparations in Vataja Abhishyanda. 2. Prove its effectiveness by scientific modes, i.e., cellular microscopic counts of eosinophils.

Methods: Study was carried out on patients of Vataja Abhishyanda – Simple Allergic conjunctivitis attending O.P.D. of Shalakya Dept., I.P.G.T. & R.A., G.A.U., Jamnagar. Patients between age group of 16 to 60 years with complains of only Vataja Abhishyanda were been studied. A detailed scientific research proforma was prepared and meticulous clinical examination was performed as per the modern and Ayurvedic techniques before and after the treatment.

For Ashchytana formulation, Yavakuta was done in pharmacy of Gujarat Ayurveda University, and Kwatha was prepared. For Eye Drops formulation, upto distillation process was carried out in pharmaceutical dept. of I.P.G.T. & R.A., and sterile packing of the Eye Drops was done in 10ml plastic bottles at Indian Ophthalmic, Surendranagar.

This study has been cleared by Institutional Ethics Committee vide letter No./ PGT/Ethics/2008-2009/2520 dated 24/11/2008.

Grouping:

- Group A: 10 drops of Bilvadi Kwatha Ashchytana was instilled thrice in a day for three months.
- Group B: 1 drop of Bilvadi Eye Drops was instilled thrice in a day for three months.

The objective assessment of Bilvadi Ashchytana and Bilvadi Eye Drops on Vataja Abhishyanda was done by Absolute Eosinophils Count, carried out before and after the treatment to know the status of eosinophils in blood, and conjunctival smear examination was carried out in which Leishman's Stain was used for differentiation of the white cells- specially for Eosinophils, Neutrophils and Gram's Stain was used for confirmation of allergic origin.

For feasibility of statistical analysis according to the severity of the symptoms, score was given individually for all subjective symptoms and signs from 0 – 4.

The obtained data on the basis of observations were subjected for statistical analysis in term of mean, standard deviation, standard error unpaired "t" test and paired "t" test were conceded.

Result: Maximum number of patients i.e. 31.25% belonged to age group of 21 – 30 years. Maximum number of patients i.e. 65.62 % were female. Maximum number of patients i.e. 90.62% belonged to urban area. Majority of the patients i.e. 40.62 % were having Ruksha Sheeta Sparsha. In group A (Bilvadi Ashchytana), the AEC (Absolute Eosinophils Count) was relieved by 33.80% ($P < 0.01$). In group B (Bilvadi Eye Drops), the AEC was relieved by 30.40 % ($P < 0.02$). Unpaired 't' test shows that in AEC, both of therapies gave almost equal result. In conjunctival smear examination, the eosinophils of the right eye was relieved by 66.70% and shows highly significant result ($p < 0.001$), while neutrophils of the right eye was relieved by 44.00% and eosinophils of the left eye was relieved by 56.00% and neutrophils of the left eye was relieved by 43.00% but they were statistically insignificant.

Table 1: Age wise distribution of 32 patients of Vataja Abhishyanda

Age	No of patients		Total	%
	Group A	Group B		
16 – 20	3	3	6	18.75
21 – 30	7	3	10	31.25
31 – 40	2	6	8	25.00
41 – 50	1	4	5	15.62
51 - 60	3	0	3	09.37

Table 2: Sex wise distribution of 32 patients of Vataja Abhishyanda

Sex	No. of patients		Total	%
	Group A	Group B		
Male	5	6	11	34.37
Female	11	10	21	65.62

Table 3: Habitat wise distribution of 32 patients of Vataja Abhishyanda

Habitat	No. of patients		Total	%
	Group A	Group B		
Urban	14	15	29	90.62
Rural	2	1	3	09.37

Table 4: Twak Sparsha wise distribution of 32 patients of Vataja Abhishyanda

Twak Sparsha	No. of patients		Total	%
	Group A	Group B		
Ruksha Sheeta	07	06	13	40.62
Ruksha Ushna	05	05	10	31.25
Snigdha Sheeta	02	02	04	12.50
Snigdha Ushna	02	03	05	15.62

Table 5: Effect of therapies on Absolute Eosinophil Count

AEC	No	Mean		Mean ± SE	%	S.D.	‘t’	P
		BT	AT					
Group A	14	285.71	96.40	189.31 ± 23.60	33.80	88.20	4.09	<0.01
Group B	13	303.84	92.30	211.54 ± 32.90	30.40	119.00	2.80	<0.02

Table 6: Effect of therapies on conjunctival smear examination

Right eye	No	Mean		Mean ± SE	%	S.D.	‘t’	P
		BT	AT					
Eosinophils	10	1.5	1.0	0.50 ± 0.16	66.7	0.5	6.32	<0.001
Neutrophils	10	0.9	0.4	0.50 ± 0.30	44.0	1.0	1.3	<0.05
Left eye	No	Mean		Mean ± SE	%	S.D.	‘t’	P
		BT	AT					
Eosinophils	10	1.6	1.0	0.60 ± 0.00	56.0	1.0	2.0	<0.05
Neutrophils	10	0.7	0.0	0.70 ± 0.00	43.0	1.0	2.0	<0.05

Discussion: Today we are living in a highly polluted environment due to the development of the industries. Jamnagar is known for industrial pollution. No work has been carried out on role of Ashchyoyana formulation in Vataja Abhishyanda in Jamnagar. So this study was planned as a beginning of the research work on the common ocular problem i.e. Simple Allergic Conjunctivitis.

Selection of the drug: Among the various formulations prescribed for the treatment of Vataja Abhishyanda by different acharyas, the Bilvadi Yoga which is indicated in the treatment of Vataja Abhishyanda by Bhaishajya Ratnavali was selected.² All the ingredients are having Vata Shamaka effect. Moreover all the ingredients are known for antibacterial and anti inflammatory activity.^{3,4} The possible explanation for more susceptibility of patients of 21 – 40 years of age is that they are more exposed to polluted and dusty atmosphere as this is the most active phase of life. So they cannot avoid the allergen come in contact with ocular surface.

The Ruksha and Snigdha, Sheeta and Ushna Sparsha depend on the Prakriti of the individuals. Thus, it is not possible to say that persons with sheeta /Ruksha Sparsha are more prone to Vataja Abhishyanda but it shows that Vata Pradhana Prakriti and Vata vitiation condition of the patients. This study has established that Bilvadi Ashchyotana showed better results in the clinical symptoms of Vataja Abhishyanda- Simple Allergic conjunctivitis but still the results obtained in Bilvadi Eye Drops group are also encouraging. So, in patients who cannot come for Ashchyotana procedure eye drops can be an alternative treatment modality.

Conclusion: Bilvadi Yoga – Bilva, Agnimantha, Syonaka, Patala, Gambhari, Eranda, Brihati, Tarkari and Madhu Shigru described in the treatment of Vataja Abhishyanda by Acharyas, are effective on the disease Vataja Abhishyanda – Simple Allergic Conjunctivitis which is evidenced objectively by cellular study. This study has established that Bilvadi Ashchyotana showed better results in the clinical symptoms of Vataja Abhishyanda- Simple Allergic conjunctivitis but still the results obtained in Bilvadi Eye Drops group are also encouraging. So, in patients who cannot come for Ashchyotana procedure eye drops can be an alternative treatment modality.

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