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STUDY OF ROLE OF BHARANGI SYRUP IN THE MANAGEMENT OF PRATISHYAYA IN PRESCHOOL AGE GROUP (3 TO 6 YEARS)

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ABSTRACT

Pratishyaya is a very common disease seen all over the world causing much distress and discomfort to the children. *Pratishyaya* hampers child's ability to do daily activity. Since last three decades the prevalence of rhinitis is increasing because of the environmental changes like pollution, dust, smoke and wrong dietary habits. The rate of prevalence is up to 40%. This study was conducted to evaluate the *Bharangi* syrup in the management of *pratishyaya* in preschool age group (3 to 6 years). For these 30 patients were selected from O.P.D of College of Ayurved & research center, Akurdi Pune 411044. Patients were treated with syp *Bharangi* for 7 days. Follow up was done every 3rd, 5th& 7th day. An informed consent was obtained from parents. Statistically significant results were observed. It is concluded that syp *Bharangi* was very effective on *Pratishyaya*.

Keywords: Pratishyaya, Bharangi, Effective

INTRODUCTION

Pratishyaya which is a very common disease affecting any age group of both sex. It is a complex disease involving several symptomatology and diverse pathogenesis. It is well known for its recurrence & chronicity. Recurrence of the disease occurs because the *Doshas* reside in their latent stage (predisposing stage) & give rise to the same disease when factors (aggravating factors) are favorable. The specific features of a child like *Dosha DushyaMalalpata, Soukumaryata, Aparipakwa Dhatu, Asampurna Bala, Kleshasahishnutwa* etc. are special consideration. These factors lowered the immune status of the child that makes him more susceptible for repeated infections. The *vyadhi* in which *kaphadi doshas* are expelled out through *Nasa* is known as *Pratishyaya*. It is characterized by *Nasasrava, Kshawathu, Ghranopradha, Shirshool, Jwara, Kasa, Swarbheda, Aruchi*. It seems to be simple disease but if it is not treated, neglected or due to improper management it leads to severe and complicated condition like *kasa, shwas, kshay* etc. The antihistamines, anti-inflammatory and corticosteroids of modern medicine though found to be effective in relieving the symptoms of Rhinitis but does not offer complete cure of disease. Even higher antibiotics and systemic steroids are being prescribed injudiciously to infants and young children it leads to depression of



immune system and due to further long-term use of these medicines would cause systemic disturbance and still not a permanent cure naturally. The selected drug *Bharangi* has capacity to resolve *samprapti* of *Pratishyaya*. It has properties like *deepaniya*, *pachaniya*, *shothahara*, *kasahara*, *shwashahara* and *peenashara* as mentioned in *Bhavprakash nighantu*.

Aim-To study of role of *Bharangi* Syrup in the management of *Pratishyaya* in Preschool age group (3 to 6 years).

Objectives:

1. To study Pratishyaya vyadhi in detail.

2. To study causes of *Pratishyaya* in detail.

Clinical Study-

Inclusion Criteria:

Assessment Criteria-

A) Subjective Criteria-

Table 1: Nasasrava (Watery/Mucoid/Green/Yellow Nasal discharge)-

Symptoms	Grade
No Nasasrava	0
Mild-Occasionally	1
Moderate-Frequent	2
Severe-Continuous	3

Table 2: Kshavathu (Sneezing)

Symptoms	Grade
No sneezing	0
Mild-Occasionally	1
Moderate-Frequent	2
Severe- Continuous	3

Table 3: Ghranoparodha (Nasal congestion)-

Symptoms	Grade
Normal Breathing	0
Mild- Nasal and oral breathing	1
Moderate- Oral breathing	2
Severe oral breathing	3

Table 4: Shirashoola (Headache)-

Symptoms	Grade
Absent	0
Present	1

- 1. Children between the age group of 3 to 6 years, irrespective of gender, religion, socio-economic status.
- 2. Patient presenting with symptoms of *Vataj*, *Pittaj*, *Kaphaja pratishyaya*.
- 3. History of symptoms of *pratishyaya* not more than 7 days.

Exclusion Criteria:

- 1. Known case of Asthma and chronic infections like Tuberculosis.
- 2. Upper respiratory tract infections like chronic rhinitis, Tonsillitis, Sinusitis.
- 3. Lower respiratory tract infections like Pneumonia, Bronchitis.
- 4. Raktaj, Sannipataj, Dushta pratishyaya.
- 5. Congenital anomalies related to respiratory system.

Table 5: Swarabheda (Hoarseness of voice)-

Symptoms	Grade
No Swarabheda	0
Mild Swarabheda	1
Moderate-Swarbheda but no difficulty in speech	2
Severe- Cannot make voice at speech	3

Table 6: Aruchi (Tastelessness/ Not willing to Feed)-

Symptoms	Grade
Not present	0
Mild-Oral intake less than routine intake	1
Moderate-Sometimes takes food properly but sometimes avoid it.	2
Severe-Aruchi Present	3

Table 7: Kandu (Nasal Itching) -

Symptoms	Grade
Absent	0
Present	1

Table 8: Kasa (Cough)

Symptoms	Grade
No Cough	0
Mild-Occasional cough 1-2 bouts per day	1
Moderate-Frequently cough 3-5 bouts per day	2
Severe-Continuous cough	3

Objective Criteria: Absolute Eosinophil Count.

Drug- Bharangi

Family-Verbanaceae Latin name-Clerodendeum serratum Linn *Rasa-katu, kashay, tikta vipak-katu Virya-Ushna Guna-Ruksha, laghu Doshghnata-kaphaghna vataghna Prayojyang-Mula-twak* **Preparation and administration of drug** –

Methodology-

Method of preparation of *Bharangi* syrup- (*Sharangdhara Samhita Madhyam khanda*) *Mula* of *Bharangi* taken in mentioned quantity and clean properly. The drug makes into *yavakutta* (course powder) form. The course powder soaked in water overnight. Then decoction of the drug prepared by adding 16times of water of total weight of crude drug. It allowed to boil till 1/8th water remains and filtered properly. Then 70% *sita* added to the decoction and heat given till the sugar

melts. The boiling process continues until the syrup consistency is obtained. Again, syrup filtered in a fine fresh cotton cloth and appropriate preservatives added as per Indian pharmacopeia. Finally, prepared syrup filled in clean and sterilized bottles 300ml for dispensing. This drug prepared in the Rasashala of our Ayurveda institute as per standard procedure mentioned for preparation of syrup.

Clark's formula- (Weight in kg/60) x Adult dose

Dose – 1ml/kg/day as per Clark's formula according to the weight divided 3 times in a day.

Adverse Drug Reaction-Patient instructed to report adverse drug reaction if any, as soon as observed.

Distribution according to Absolute Eosinophil Count: (Chart no 1)

Since observations are quantitative, we have used paired t-test to test the significance in AEC. From above table we can observe that P-Value is less than 0.05 hence we conclude that there is significant change observed in AEC.



Statistical Analysis for change in *Nasasrava* (Chart no 2)

Since observations are on ordinal scale, we have used Wilcoxon Signed rank test to test the efficacy. From above table we can observe that P-Value is less than 0.05 hence we conclude that effect observed is significant.



Statistical Analysis for change in *Kshavathu* (chart no 3)

Since observations are on ordinal scale, we have used Wilcoxon Signed rank test to test the efficacy. From above table we can observe that P-Value is less than 0.05 hence we conclude that effect observed is significant.



Statistical analysis for change in *Ghranoparadha* (chart no 4)

Since observations are on ordinal scale, we have used Wilcoxon Signed rank test to test the efficacy. From above table we can observe that P-Value is less than 0.05 hence we conclude that effect observed is significant.



Statistical analysis for change in *Shirshoola (chart 5)* Since observations are on ordinal scale, we have used Wilcoxon Signed rank test to test the efficacy. From above table we can observe that P-Value is less than 0.05 hence we conclude that effect observed is significant.



Statistical analysis for change in *Swarbheda (chart no 6)*

Since observations are on ordinal scale, we have used Wilcoxon Signed rank test to test the efficacy. From above table we can observe that P-Value is less than 0.05 hence we conclude that effect observed is significant.



Statistical analysis for change in *aruchi* (chart no.7) Since observations are on ordinal scale, we have used Wilcoxon Signed rank test to test the efficacy. From above table we can observe that P-Value is less than 0.05 hence we conclude that effect observed is significant.



Statistical analysis for change in *Kandu (chart no 8)* Since observations are on ordinal scale, we have used Wilcoxon Signed rank test to test the efficacy. From above table we can observe that P-Value is less than 0.05 hence we conclude that effect observed is significant.



Statistical analysis for change in Kasa (chart no 9)

Since observations are on ordinal scale, we have used Wilcoxon Signed rank test to test the efficacy. From above table we can observe that P-Value is less than 0.05 hence we conclude that effect observed is significant.



DISCUSSION

For the clinical study a null hypothesis was formulated as *Bharangi* Syrup 1ml/kg/day for 7 days after meal thrice in a day is not effective in Pratishyaya in Preschool age group (3 to 6 years).

Clinical trial was carried out in 30 patients of 3 to 6 years age group having sign and symptoms of *Pratishyaya*. Patients were selected randomly for 7 days along with parent consent. The result was analyzed on the basis of improvement in clinical features. The obtained results were statistically analyzed by mean of

mean, methods, percentage by Wilcoxon sign rank Test & pair "t" Test.

Absolute Eosinophil Count In present study, before treatment the median value was 3, after treatment it is reduced to 1, hence the treatment significant.

Using Wilcoxon Signed Rank Test, P- Value is less than 0.05 hence it is said that, *Bharangi* syrup is significantly effective on absolute eosinophil count.

Nasasrava- It is the main symptoms of *Pratishyaya* and was mentioned in all types of *pratishyaya*. The consistency of the discharge shows significant variation child to child suffering from *pratishyaya*. None of the child had bloody discharge. Most of the children were seen having watery discharge which is the main feature of *Pratishyaya*. Bharangi syrup is significantly effective on *Nasasrava*. The reasons for good result were *Ushna, Tikta guna* of *Bharangi* due to which *Nasasrava* is reduced.

Kshavathu: The symptoms kshavathu which is Vataj and Kaphaj in origin was found in children. Bharangi which is Vata Kaphanaskak in nature and having Ushna, Tikshna guna causes alleviation of Vata Kapha and hence reduces the symptoms Kshavathu.

Ghranoparodha- Bharangi syrup is significantly effective on *Ghranoparodha*. This may be because of activity of specification of *Kapha dosha* and *Anuloman* of *Vayu*. The probable action of drug is due to *Tikshna, ushna Vatashamak guna* of *Bharangi*.

Shirshoola: Bharangi syrup is significantly effective on *Shirshoola*. due to *Ushna virya* and Vatanuloman property of *Bharangi* which causes allevation of *Vata* and *shirshoola* is relieved.

Swarbheda: *Bharangi* syrup is significantly effective on *Swarbheda*. It is probably due to *Ushna, Tikshna guna* and *Kapha-Vataghna* property *of Bharangi*.

Aruchi -As drug *Bharangi* has *Deepaniya* property and *Katu, Tikta* as a dominant *rasa* so it reduces *Aruchi*.

Nasa Kandu: Before treatment the median value was 1, after treatment it is reduced to 0.5, hence the treatment significant. Using Wilcoxon Signed Rank Test, P-Value is than 0.05 hence it is said that, *Bharangi* syrup is significantly effective on *Kandu*.

Kasa: Bharangi syrup is significantly effective on *Kasa.* Due to *Ushna, Tikshna guna* and *Vata*

Kaphahara property of *Bharangi*, alleviation of *Kapha Vata* occurs and hence symptom *Kasa* is reduced.

CONCLUSION

The overall effect of *Bharangi* syrup which is *Tridoshahar* and reduction in of symptoms and signs of *Pratishyaya* in Preschool age 3 to 6 years. P value is < 0.01. Hence, we conclude that effect observed is significant. No adverse reactions had been seen in this study for the drug.

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