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"A STUDY ON THE EFFICACY OF DASHAMULA GHRUTA IN THE MANAGEMENT OF VATAJ PRATISHYAYA W. S. R. TO ALLERGIC RHINITIS IN CHILDREN"

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ABSTRACT,

Present study was planned to evaluate the nature of disease, its course and management with ayurvedic phytotherapy and to develop evidence based support for effect of dashamoola ghruta in the management of vataj pratishyaya as mentioned in our ancient literature. The therapy proves to be easily available, cost effective, herbal alternative in the management of vataj pratishyaya (allergic rhinitis)

Keywords: Allergic rhinitis, Vataj pratishyaya, dashamoola ghruta.

INTRODUCTION

Allergic rhinitis is an antigen antibody reaction occurring in the respiratory tract causing inflammation and producing severe discomfort to the patient. Allergic rhinitis is similar to the disease vataj pratishyaya described in ayurvedic classic. It is an immunoglobulin E mediated inflammatory disease caused by the inflammation of airway mucosa with hypersensitivity resulting from seasonal or perennial responses to specific allergens. Three types of causative factors are described in Ayurveda these are 1) Asatmyendriyarthas 2) Pragnaparadha 3) Parinama. Pratishyaya is a severe & general body debilitating condition, which manifest due to the migration of the Kapha, Rakta & Pitta from the root of the Nasa pradesha, they get lodged into Shiraha pradesha which is already forcibly titrated & vitiated by the Vata Dosha. (Ch.Chi. 8/48).

The drugs selected for this work are Dashamoola ghruta of these Dashamoola ghruta is well indicated in Pratishyaya in Ashtanga Hridaya U. 20. Dashmoola is a ten roots compound to treat Vata dosha. Dashmoola is excellent medicine for treating inflammatory and allergic condition or vata vyadhis.

AIMS AND OBJECTIVES

AIM:-

A study on the efficacy of dashamoola ghruta in the management of vataj pratishyaya w.s.r. to allergic rhinitis in children.

OBJECTIVES:-

- 1) To study the vataj pratishyaya according to Ayurveda and modern science.
- 2) To provide an alternative cost effective therapy with least side effects.
- 3) To study the effect of Dashamoola ghruta in vataj pratishyaya.

MATERIALS AND METHODS

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Title of study:- A study in the efficacy of dashamoola ghruta in the management of vataj pratishyaya w. s. r. to allergic rhinitis in children.

Study center:- Saptashrungi Ayurvedic Hospital, Panchawati, Nashik

Type of study:- Open Randomized Study.

Total 67 patients were registered for study on the efficacy of dashamula ghruta in the management of vataj pratishyaya . among 67, 7 patient were drop out so finally 60 patient were taken for study, these 60 patient divided into two group.

A group:- it is Experimental group for dashmoola ghruta

B group:- it is control group for Levocetirizine, each group content randomly selected 30 pateint.

CRITERIA FOR SELECTION OF PATIENTS :-

INCLUSION CRITERIA:-

- Patients between age of 3 years to 15 years were taken for this clinical study
- Patients fulfilling the diagnostic criteria of vataj pratishyaya.
- The selection of the patient was irrespective of their sex, religion, socioeconomic status.

EXCLUSION CRITERIA:-

- Age below 3 years and above 15 years were not taken for this study
- Patients having infectious diseases like tuberculosis, AIDS were not taken for this study
- Any patient requiring hospitalization. Patient having any congenital deformity was not taken for this study.

- Patient having requiring any surgical intervention was not taken for this study.
- Patient having LRTI were not taken for this study.
- Patient having rhinorrhoea due to foreign body were not taken for this study.

DETAILS OF DRUG ADMINISTRATION:

- **Group A**
(Experimental Group)
Drug Name: Dashamula ghruta
DOSE OF DASHAMULA GHRUTA:-

AGE (YRS)	DOSE (ML)
3 – 8	2.5 ML BD
8- 10	5 ML BD
10- 14	10 ML BD

Time of administration:-

After meals in 2 divided doses.

Duration:- 7 days.

Follow up: 7 th & 15th day.

- **Group B** (Control Group) Drug
Name:- Levocetirizine
DOSE OF LEVOCETIRIZINE:-

AGE(YRS)	DOSE (MG)
3 -5	1.25 MG OD
6 -11	2.5 MG OD
11- 15	5 MG OD

Time of administration:- OD after meals.

Duration:- 7 days.

Follow up: 7th & 15th day.

CRITERIA FOR ASSESSMENT:-

- Improvement in the patient were assessed mainly on the basis of changes in signs and symptoms of the disease as per gradation.
- Patients follow up was on 7th, 15th day.

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GRADATION OF SYMPTOMS:-

Symptoms	Grade 0	Grade 1	Grade 2	Grade 3
Nasavarodha (Nasal obstruction)	No obstruction.	Occasionally and unilateral.	Occasionally and bilateral.	Always and bilateral.
Kshavathu (Sneezing)	No sneezing.	1-10 sneezing.	10-15 sneezing.	More than 15 sneezing.
Nasavrava (Rhinorrhea)	No nasal discharge.	Occasional discharge with visible fluid.	Discharge which needs mopping but controllable.	Severe discharge with fluid needs repeated mopping.
Shirahshool (Headache)	No headache.	Mild headache doesn't hamper activity of the child.	Moderate headache hampering activity of the child.	Severe headache making child severe irritable.
Nasakandu (Itching in nose)	No itching.	Mild.	Moderate.	Severe which makes patient to rub always.

WITHDRAWAL CRITERIA:

Patients not completing the duration of treatment.

FOLLOW UP STUDY :-

Follow up will be on 7th, 15th day.

OVERALL ASSESSMENT OF THE RESULT:-

At the end of the study, by using following parameters, assessment will be obtained.

Cured	100% improvement in all signs and symptoms
Markedly improved	75% or more improvement in all signs and symptoms
Moderately improved	50% or more improvement in all signs and symptoms
Mildly improved	25% or more improvement in all signs and symptoms
Not cured	Less than 25% improvement in all signs and symptoms

Distribution of patients was as follows:

Group	Completed	Drop out	Total Registered
A	30	05	35
B	30	02	32

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Table-1 Age-wise distribution of patients:

Age(yrs.)	Group-A	Group-B	Total	(%)
3-6	3	2	5	8.3%
6-9	5	18	23	38.33%
9-12	13	8	21	35%
12-15	9	2	11	18.33%

Table 2-Sex wise distribution of patients

Sex.	Group A	Group B	Total	%
Male	20	19	39	65%
Female	10	11	21	35%

Table 3-Socio-economic status wise distribution:

Socio economic Status	Group A	Group B	Total	%
Poor	7	5	12	20%
Lower Middle	16	18	34	56.66%
Middle	7	7	14	23.33%

Table 4-Sneezing wise Distribution of Patients:

Sneezing	Group A	Group B	Total	%
1-10	18	15	33	55%
10-15	10	10	20	33.33%
15-20	2	5	7	11.66%

Table 5-Nasasrawa Wise Distribution:

	Day 1			Day 7			Day 15		
	Gr. A	Gr. B	%	Gr. A	Gr. B	%	Gr. A	Gr. B	%
Severe	24	23	78.33	00	00	0	00	00	0
Moderate	04	02	10	06	00	10	00	00	0
Mild	00	00	0	22	07	48.33	09	00	0
Absent	02	05	11.66	02	23	41.33	21	30	85

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Table 6-Kshavathu wise distribution of patients:

	Day 1			Day 7			Day 15		
	Gr. A	Gr. B	%	Gr. A	Gr. B	%	Gr. A	Gr. B	%
Severe	03	03	10	00	00	0	00	00	0
Moderate	14	20	56.66	01	00	1.66	00	00	0
Mild	11	06	28.33	09	04	21.66	03	00	5
Absent	02	01	5	20	26	76.66	27	30	95

Table 7-Nasavarodha wise distribution of patients:

	Day 1			Day 7			Day 15		
	Gr. A	Gr. B	%	Gr. A	Gr. B	%	Gr. A	Gr. B	%
Severe	05	06	18.33	00	00	0	00	00	0
Moderate	08	08	26.66	02	00	3.33	00	00	0
Mild	01	06	11.66	05	02	11.66	05	00	8.33
Absent	16	10	43.33	23	28	85	25	30	91.66

Table 8-Nasavarodha wise distribution of patients:

	Day 1			Day 7			Day 15		
	Gr. A	Gr. B	%	Gr. A	Gr. B	%	Gr. A	Gr. B	%
Severe	05	04	15	00	00	0	00	00	0
Moderate	08	08	26.66	02	00	3.33	00	00	0
Mild	01	06	11.66	05	02	11.66	05	00	8.33
Absent	14	10	40	23	28	85	25	30	91.66

Table 9-Nasakandu (Itching in Nose)

	Day 1			Day 7			Day 15		
	Gr. A	Gr. B	%	Gr. A	Gr. B	%	Gr. A	Gr. B	%
Severe	07	02	15	00	00	0	00	00	0
Moderate	17	17	56.66	03	00	5	00	00	0
Mild	04	04	13.33	13	04	28.33	05	00	8.33
Absent	02	07	15	14	26	66.66	25	30	91.66

Table 10-Shirashool

	Day 1			Day 7			Day 15		
	Gr. A	Gr. B	%	Gr. A	Gr. B	%	Gr. A	Gr. B	%
Severe	04	01	8.33	00	00	0	00	00	00
Moderate	15	14	48.33	00	00	0	00	00	0
Mild	05	04	15	05	00	8.33	00	00	0
Absent	06	09	25	25	30	91.66	30	30	100

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Table 11-X² Table for Nasasrawa

Day	X ² Value	Table Value	Overall Result
1 st	4.30708	3.84	P<0.05
7 th	26.459	5.99	P>0.05
15 th	10.588	3.84	P>0.05

Dashamula Ghruta is more effective in nasasrawa since all vales of X² was greater than table value.so we can conclude the above result .Also from table 5 overall therapy effect in nasasrawa was 85%

Table 12-X² Table for Kshavathu (Sneezing)

Day	X ² Value	Table Value	Overall Result
1 st	5.5268	7.82	P<0.05
7 th	0.16172	3.84	P<0.05
15 th	3.15	3.84	P<0.05

In sneezing another drug effect was more than dashmula ghrut, since p value is less in this table .Overall effect of drug was not so much effective for Kshavathu.

Table 13-X² Table for Nasavarodha

Day	X ² Value	Table Value	Overall Result
1 st	5.04692	7.82	P<0.05
7 th	1.65	3.85	P<0.05
15 th	5.4546	3.85	P>0.05

For Nasaravarodha Dashamula Ghrut was effective as well as another drug also shows effective results.

Table 14-X² Table for Nasakandu

Day	X ² Value	Table Value	Overall Result
1 st	7.2778	7.82	P<0.05
7 th	12.1	3.85	P>0.05
15 th	5.4586	3.85	P>0.05

For Nasakandu positive result is shown, since X² value is greater than table value on 7th and 15th day.

Table 15-X² Table Shirahshool

Day	X ² Value	Overall Result
1 st	3.225	P<0.05
7 th	5.4546	p>0.05
15 th		100%

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Shirshool was not told by most of the student, small age group child could not tell exactly about shirashool so results are depending upon age group greater than 11 years.

Table 16-Total All Effect of Drugs

	Percentage
Nasasrawa	85%
Kshavathu	95%
Nasavarodha	92%
Nasakandu	92%
Shirshool	100%

Overall effect of drug Dashamula Ghrut shown in taken sample was quite satisfactory compare to another drug levocetirizine which is established drug.

Table 17-RESULT

Symptoms	χ^2 Value	P value
Nasasrawa	26.459	>0.05
Kshavathu	5.5286	<0.05
Nasavarodh	5.4546	>0.05
Nasakandu	12.1	>0.05
Shirahshool	5.4546	>0.05

Since all χ^2 values are exceeds p value, so total study effect is significant. Dashamula Ghrut gives effective result in vataj pratishaya.

DISCUSSION:

Vataj pratishyaya was a disease of major concern in the history of Ayurveda. The prevalence of allergic rhinitis in paediatric practice is of daily occurrence. In India nearly 20-25% of children are affected by the allergic rhinitis, that's why this topic was selected for study. Allergic rhinitis is an antigen antibody reaction occurring in the respiratory tract causing inflammation and producing severe discomfort to the patient. It is an immunoglobulin E mediated

inflammatory disease caused by the inflammation of airway mucosa with hypersensitivity resulting from seasonal or perennial responses to specific allergens.

Dashamoola ghruta is nicely explained by Vagbhata in vataj pratishyaya, all the properties of dashamoola are vatahara till date there is not any study done on this topic that's why we have selected this topic, preparation of dashamoola ghruta were done according to grantha, Levocetirizine is a third-generation non-sedative antihistamine,

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developed from the second-generation antihistamine cetirizine.

There were total 67 patient registered, among 67, 7 patient were drop out so finally 60 were taken for study they are divided in 2 group, A group & B group, A group for dashamoola ghruta and B group for levocetirizine i.s control group. For analysis purpose classify total children in to various age groups like 3-6, 6-9 and so on, There are 8.3% children from both group are of age 3 to 6 years. 6 to 9 Years age group having 38% children from both group. 35% of age group 9 to 12 years and 18% student of age group 12 to 15 years. There are 21 male child in Group A and 18 in group B .that means 65% male Childs are included in study. There are 9 females in group A and 12 in group B. That means 35% female children are included in study. Students are enrolled from Municipal Corporation School so there socio economic status was not so good. On an average 63% patients were from lower middle class. 20% were from poor family and only 17% from middle class family.

All analysis was compare at 5% level of significance. Overall effect of Dashamula Ghrut is quite satisfactory in study of management of vataj pratishaya.

CONCLUSION

- 1) Vataj pratishyaya was a disease of major concern in the history of Ayurveda
- 2) The prevalence of allergic rhinitis in paediatric practice is of daily occurrence. In India nearly 20-25% of children are affected by the allergic rhinitis.
- 3) The chikitsa siddhanta of Vataja Pratishyaya advocates matranusara ghrutapana.
- 4) Dashamoola ghruta in vataj pratishyaya is nicely explained by vagbhata in A.H.U 20.
- 5) Levocetirizine is a third-generation non-sedative antihistamine, developed from the second-generation antihistamine cetirizine.
- 6) There were 67 patients are enrolled for study on the Efficacy of Dashmula Ghrut in the management of Vataj Pratishyaya with respect to Allergic Rhinitis in children.
- 7) 7 patient were drop out so finally 60 were taken for study they are divided in 2 group, A group & B group, A group for dashamoola ghruta and B group for levocetirizine i.s control group.
- 8) For analysis purpose classify total children in to various age groups like 3-6, 6-9 and so on.
- 9) All analysis was compare at 5% level of significance.

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10) Overall effect of Dashamula Ghrut is quite satisfactory in study of management of vataj pratishaya

11) From Table No. 17 we can say that, since all X^2 values are exceeds p value, so total study effect is significant .Dashamula Ghrut gives effective result in vataj pratishaya.

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