



A CLINICAL STUDY ON *COLEUS AROMATICUS* BENTH W.S.R TO KAPHAJAKASA

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ABSTRACT

Coleus aromaticus Benth. is a drug which is being used by some folklore practitioners for the diseases like fever, cough and uro-genital disorders. The drug, *Coleus aromaticus* Benth. which is widely available in India, which is often discussed as a controversy for the source of Pashanabheda. The above mentioned drug is having Kaphavatahara property. Clinical trials were done on 40 patients, assigned in 2 groups of 20 each. The patients were treated with Ambrodil syrup and Arka of *Coleus aromaticus* Benth. in Group A and Group B respectively. The duration of the treatment was 10 days. Patients were assessed on 5th, 10th day and a follow up was of 20 days. The effects of treatment were assessed statistically on the basis of gradation of cardinal signs and symptoms, before and after treatment. The results were analysed statistically. The analysis suggested that The *Coleus aromaticus* Benth. is a good choice of drug in Kaphajakasa (productive cough) associated with Aruchi (Anorexia), and number of cough bouts.

Keywords: *Coleus aromaticus* Benth, Arka, Kaphajakasa, Expectoration.

INTRODUCTION

Now a days according to passage of the time the circumstances are so critical that there are so many classical drugs described have almost lost the criteria of Sampannata of an ideal drug. On the other hand so many plants, which are successfully fulfilling the criteria of ideal drugs, are being used by the tribal people all over the world especially by the villagers. A good number of such medicinal plants are either absent in the Ayurvedic literature or just been mentioned at discrete places. The complete description of such medicinal plants in terms of Nama, Rupa, Guna may not be available in the Ayurvedic texts. Therefore there is an urgent need to first demarcate, identify and recollect these plants and then analyze them scientifically in Ayurvedic terms of 'Dravya', 'Guna', 'Karma', 'Prabhava' etc. *Coleus aromaticus* Benth. is such a plant which is widely available throughout India. This drug can be equated with Pashanabheda or Parnayavani^{1,2}. The reference about Pashanabheda is available from Samhitha Kala onwards. The name Parnayavani is given by Acharya P.V. Sharma³. Some folklore practitioners of Pandalam village of Kerala State are giving the leaves of *Coleus aromaticus* Benth. in different forms like Swarasa and Arka mainly in the diseases such as Jwara and Kasa.

Kasa is considered as one among the independent diseases in Ayurvedic classics^{4,5,6}. It won't be appropriate to have a pinpoint correlation between the terms described in the text books of Ayurveda and those available in modern textbooks of medicine, but by going through the details of etiopathogenesis and symptomatology of the disease Kasa and cough from both the schools, Kaphaja Kasa can be correlated with productive cough. Cough is the fifth most common symptom for which patients seek medical care. Cough occurs in association with acute upper respiratory infection, acute pharyngitis, acute bronchitis and chronic sinusitis, all of which rank among the top 10 reasons for visiting family physicians.

Kaphaja kasa (productive cough) is a common upper respiratory tract ailment prevalent now a days, is increasingly annoying and irritating the individual in his

routine activity. Moreover when neglected or improperly managed, may lead to a series of complications in due course. Vata and Kapha are the two key pathological factors involved in the Samprapti of Kaphaja Kasa. *Coleus aromaticus* Benth is having distinct Kaphavatahara property. Hence an effort is made to assess the action of drug in Kaphajakasa.

MATERIALS AND METHODS

To find out the effect of the drug in the treatment of Kaphajakasa and to compare and assess relative merits of the drugs, 40 patients were selected and assigned into 2 groups of 20 each.

Group A for studying effect of Ambrodil Syrup (AmbroxolHCl)

Group B for studying effect of Arka of *Coleus aromaticus* Benth leaves

Criteria for selection of patients

Patients with signs and symptoms of Kaphajakasa were selected from OPD of Alva's Ayurveda Medical College Hospital, Moodbidri, irrespective of sex, religion and socio-economic status. Patients were selected on the basis of simple random sampling technique.

Inclusion criteria

1. Age group between 16-60 years.
2. Diagnosed case of Kaphajakasa.
3. Patients irrespective of sex, religion and socio-economic status are taken.

Exclusion criteria

1. All other type of kasa except of Kaphajakasa.
2. Pregnant women.
3. Kaphajakasa as associated symptom in other systemic illness like T.B, HIV, tropical eosinophilia, carcinoma etc.
4. Patients on steroid treatment.

Study design

For diagnostic purpose the signs and symptoms mentioned below were taken for the study.

1. KantaKandu
2. Chardi
3. Gaurava
4. Peenasa

5. Mandagni
6. Aruchi
7. Physical examination of sputum
8. Number of cough bouts

Dose, duration and mode of administration

1. Duration of treatment–10 days.

2. Dosage internally-

Group A- 5ml of Ambrodil syrup, three times in a day.

Group B-10ml of Arka mixed with equal amount of water three times in a day.

Criteria of assessment

The observations of signs and symptoms were recorded before treatment, 5th day and after the treatment. Assessment of the total effect of therapy made by analyzing the data statistically as follows

Cured - Complete relief in the signs and symptoms.

Markedly improved - Patients showing more than 75% relief

Moderately improved - Relief between 50-75% in signs and symptoms

Partially improved - Relief between 25-50% in signs and symptoms

No Change - Either no change or less than 25% relief

RESULTS

Group A (Ambrodil syrup)

The effect of Ambrodil syrup (Ambroxol HCl) on various signs and symptoms mentioned above on 5th day and 10th

day were statistically significant. Thus the drug Ambroxol syrup was statistically very much useful in Kaphajakasa.

Group B (Arka of Coleus aromaticus Benth leaves)

The effect of Arka of *Coleus aromaticus* Benth on various signs and symptoms mentioned above on 5th day and 10th day were statistically significant. Thus the drug *Coleus aromaticus* Benth was statistically very much useful in Kaphajakasa.

Comparative effect of standard and trial drug

There is no statistically significant difference in signs and symptoms of Kaphajakasa in between Group A and Group B except in the case of Aruchi (Anorexia), number of cough bouts. The symptom Aruchi is having P value 0.007 and the number of cough bouts is having P value 0.025 when compared in between Group A and Group B. The drug of Group B is significant in the case of Aruchi and number of Cough bouts than Group A. Hence the drug *Coleus aromaticus* Benth can be considered as the better drug in the case of Kaphajakasa with Aruchi.

Comparative effect of the treatment

In Group A, 3 patients 15 % got 100 % relief whereas in Group B, 8 patients 40 % got 100 % relief. In Group A, 10 patients 50 % got more than 75 % relief and in Group B, 12 patients 60 % got more than 75 % relief. 7 patients 35 % of Group A got relief in between 50-75 % and 0 patient of Group B

Table 1: Signs and symptoms Distribution of 40 patients

Signs and Symptoms	Group A	Group B	Total	%
KantaKandu	20	20	40	100
Chardi	14	15	29	72.5
Gaurava	20	20	40	100
Peenasa	13	15	28	70
Mandagni	20	19	39	97.5
Aruchi	20	20	40	100
Physical examination of sputum	20	20	40	100
Number of cough bouts	20	20	40	100

Table 2: Effect of Trial drug in signs and symptoms on 5th day in group A

Signs and Symptoms	Mean		%	“t” Value	“p” Value
	BT	AT			
KantaKandu	2.400	1.350	44	21	<0.0001
Chardi	0.950	0.400	58	4.818	<0.0001
Gaurava	1.700	0.800	53	13.076	<0.0001
Peenasa	1.050	0.450	57	4.485	<0.0001
Mandagni	1.000	0.600	40	3.559	<0.0001
Aruchi	2.050	1.100	46	19	<0.0001
Physical examination of sputum	2.650	1.550	42	15.98	<0.0001
Number of cough bouts	2.300	1.350	41	19	<0.0001

Table 3: Effect of trial drug in signs and symptoms on 10th day in group A

Signs and Symptoms	Mean		%	“t” Value	“p” Value
	BT	AT			
KantaKandu	2.400	0.400	83	27.568	<0.0001
Chardi	0.950	0.000	100	5.596	<0.0001
Gaurava	1.700	0.050	97	15.079	<0.0001
Peenasa	1.050	0.050	95	4.873	<0.0001
Mandagni	1.000	0.200	80	8.718	<0.0001
Aruchi	2.050	0.450	78	14.236	<0.0001
Physical examination of sputum	2.650	0.500	81	26.245	<0.0001
Number of cough bouts	2.300	0.300	87	27.568	<0.0001

Table 4: Effect of placebo in signs and symptoms on 5th day in group B

Signs and Symptoms	Mean		%	“t” Value	“p” Value
	BT	AT			
KantaKandu	2.500	1.450	42	11.917	<0.0001
Chardi	1.250	1.050	60	7.549	<0.0001
Gaurava	1.700	0.650	62	21.000	<0.0001
Peenasa	1.050	0.300	71	7.549	<0.0001
Mandagni	0.950	0.250	74	6.658	<0.0001
Aruchi	2.000	0.650	68	12.337	<0.0001
Physical examination of sputum	2.450	1.400	43	21	<0.0001
Number of cough bouts	2.500	1.250	50	12.580	<0.0001

Table 5: Effect of placebo in signs and symptoms on 10th day in group B

Signs and Symptoms	Mean		%	“t” Value	“p” Value
	BT	AT			
KantaKandu	2.500	0.300	88	15.982	<0.0001
Chardi	1.250	0.000	100	6.570	<0.0001
Gaurava	1.700	0.000	100	16.170	<0.0001
Peenasa	1.050	0.000	100	6.185	<0.0001
Mandagni	0.950	0.000	100	19	<0.0001
Aruchi	2.000	0.050	98	39	<0.0001
Physical examination of sputum	2.450	0.150	94	21.877	<0.0001
Number of cough bouts	2.500	0.150	94	17.899	<0.0001

Table 6: Comparative effect of trial drug and placebo in signs and symptoms on 10th day

Signs and Symptoms	Mean Difference		Percentage Relief %		“t” Value	“p” Value
	Group A	Group B	Group A	Group B		
KantaKandu	2.000	2.200	83	88	1.285	0.206
Chardi	0.950	1.250	100	100	1.170	0.249
Gaurava	1.650	1.700	97	100	0.329	0.743
Peenasa	1.000	1.050	95	100	0.188	0.851
Mandagni	0.800	0.950	80	100	1.435	0.159
Aruchi	1.600	1.950	78	98	2.845	0.007
Physical examination of sputum	2.150	2.300	81	94	1.120	0.269
Number of cough bouts	2.000	2.350	87	94	2.333	0.025

Table 7: Overall effect of the treatment

Effect of Therapy	Group A	Group B	Total	%
Cured 100 % Relief	03	08	11	27.5
Markedly Improved >75% Relief	10	12	22	55.0
Moderately Improved 50-75 % Relief	07	00	07	17.5
Partially Improved 25-50 % Relief	00	00	00	00.0
No Change <25 % Relief	00	00	00	00.0

Table 8: Comparative effect of the treatment

Effect of Therapy	Group A	%	Group B	%
Cured 100 % Relief	03	15.0	08	40.0
Markedly Improved >75% Relief	10	50.0	12	60.0
Moderately Improved 50-75 % Relief	07	35.0	00	00.0
Partially Improved 25-50 % Relief	00	00.0	00	00.0
No Change <25 % Relief	00	00.0	00	00.0

DISCUSSION

The drug *Coleus aromaticus* Benth is having Katu (Pungent), Tikta (bitter) Rasa and the Tikta Rasa acts as Kaphahara; it acts as Deepana, Pachana and Lekhana. The Tikshna Guna reduces Pichilata of Kapha and helps in expectoration, relieving the spasm of Srotas, thus Dosha vilayanam and Srothosodhana are brought about by the drug. The Laghu Guna has the property of purveyance in to the minute channels there by cleaning them. The Ushna Veerya of the drug helps in Kaphavatahara action. Katu Vipaka reduces Kleda by its Lekhana and Sodhana properties. As Kaphajakasa is an Amashaya Samudbhava Roga, the Deepana and the Pachana actions will help to

reduce Agnimandhya and Ama which are the main pathological causative factor in disease Kaphajakasa. The presence of Carvacrol, Thymol and Camphor are good antitussive and expectorant agent. It helps to expel the mucous from the respiratory tract.

Clinical response and treatment

In this study the assessment of patients was done before treatment, 5th day and after treatment. All the cardinal signs and symptoms were scored according to the severity grade. The clinical response of the therapy was assessed on the basis of change in the severity score after the treatment. The cardinal signs and symptoms are Kantakandu, Chardi, Gaurava, Peenasa, Mandagni, Aruchi, quality of sputum and number of cough bouts.

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