

## ROLE OF SHIRISHADI KASHAYA ON BRONCHIAL ASTHMA – A CLINICAL STUDY

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### ABSTRACT

Bronchial Asthma is becoming a common problem these days. This disease may result in the impairment of respiratory functions from a mild degree of disability to life threatening asphyxiation. In this present clinical study 26 patients suffering from Bronchial Asthma were selected. Group I comprising of 20 patients of Bronchial Asthma were given bronchodilators when necessary and *Shirishadi kashaya* and Group II of 6 patients were given only *Shirishadi kashaya*. All patients were followed up weekly for a period of 12 weeks. Highly significant result was found in reduction of days, frequency of Asthma attacks per week in both groups and in severity of Asthma attacks per week in Group I.

**Key Words:** Bronchial Asthma, *Tamak shwas*, *Shirishadi Kashaya*

### INTRODUCTION

Till the recent past medical scientists felt more concerned with infectious diseases but with discovery of effective antimicrobial and parasitocidal drug these diseases have been controlled to a great extent but the medical professionals are still facing much difficulties in managing allergic and immunological diseases. Bronchial asthma is a very important problem with increasing prevalence. In spite of enormous advances asthma continues to puzzle the physician from the point of view of treatment because the disease may result in the impairment of respiratory function from milder degree of disabilities to life threatening asphyxiation. In

Allopathic medicines antiallergic, immunosuppressive, mast cell stabilizers are used but they do not cure the disease instead produce many harmful effects to the body. In *Ayurveda*, there is better approach for managing it. This clinical study was done to evaluate the efficacy of an indigenous compound drug *Shirishadi Kashaya* in bronchial asthma.

### MATERIAL AND METHODS

**Source of patient:** 26 clinically diagnosed patients of bronchial asthma were selected from Kayachikitsa O.P.D and Collaborative Allergy clinic of S.S Hospital B.H.U Varanasi.

**Inclusion criteria:** 10 years or above, of either sex, suffering with dyspnoea and

wheezing for more than 3 months, had sufficiently severe symptoms to cause difficult in their every day routine and had to take bronchodilators or steroids almost daily for relief.

**Exclusion criteria:** Bronchial Asthma associated with other lung disease like tuberculosis, bronchiectasis, cor-pulmonale etc.

**Grouping:** The patients were divided into two groups

Group I: 20 patients given bronchodilator (when necessary) and *Shirishadi kashaya*

Group II: 06 patients given only *Shirishadi Kashaya*

**Trial Drug and Dose**

*Shirishadi Kashaya*- the bark of *Albezzia lebbeck*, whole plant of *Solanum xanthocarpum*, leaves of *Adhatoda vasica* and roots of *Glycyrrhiza glabra* were taken and done into coarse powder (*yava kuta*). Patients were advised to take 50grams of this mixture and boil with 400ml water on moderate heat till 50ml decoction remained. It was to be filtered and taken 25ml twice daily after meal for 12 weeks.

**Trial Duration:** 12 weeks with weekly follow up

**Assessment Criteria**

**Subjective indices-**

- A. Total days of asthma per week – total days with any asthma attack
- B. Frequency of acute asthma attacks per week
- C. Severity of asthma on an arbitrary scale mainly related to bronchodilator necessary to relieve attacks only in Group I

Severity Score:

- 1- no bronchodilator required
- 2- 1 tab of bronchodilator required in 24 hrs
- 3- 2 tab of bronchodilator required in 24 hrs
- 4- 3 tab of bronchodilator required in 24 hrs
- 5- 4 tab of bronchodilator required in 24 hrs
- 6- Had to take injectable bronchodilator Bronchodilator-terbutaline 5mg or salbutamol 4mg or aminophylline/theophylline

**Objective indices-**

- 1. Measurement of PEFr every week done only in Group II

**OBSERVATION & RESULT**

**1. Days of Asthma per week**

**Table No. 1 showing changes in mean days of asthma per week**

Group	Mean Score			SD	T	P	Interpretation
	B.T.	A.T.	Diff.				
I	6.15	1.75	4.40	1.16	11.28	<0.001	Highly Significant
II	4.17	0.83	3.34	0.40	9.57	<0.001	Highly Significant

**2. Frequency of asthma attacks per week**

**Table No. 2 showing changes in mean frequency of asthma attacks per week**

Group	Mean Score			SD	t	P	Interpretation
	B.T.	A.T.	Diff.				
I	5.80	1.00	4.80	1.21	4.37	<0.001	Highly Significant
II	2.50	0.16	2.34	0.40	5.07	<0.001	Highly Significant

**3. Severity of Asthma per week in Group I patients**

**Table No. 3 Showing changes in mean severity of asthma attacks per week in Group I**

Group	Mean Score			SD	t	P	Interpretation
	B.T.	A.T.	Diff.				
I	37.80	18.15	19.65	6.08	8.63	<0.001	Highly Significant

**4. PEFR (done only in Group II)****Table No. 3 Showing changes in PEFR (lit/min) in Group II patients**

Group	Mean Score			SD	t	P	Interpretation
	B.T.	A.T.	Diff.				
II	231.66	281.66	50.00	9.83	8.01	<0.001	Highly Significant

**DISCUSSION**

The clinical response was encouraging as the symptoms of Bronchial Asthma ameliorated in both groups. Probable Mode of Action of *Shirishadi Kashaya* can be assessed by the properties of its ingredients-

***Shirish* (*Albezzia lebeck*)**

It is *tridosha* pacifying, inhibits the sensitization process, stabilizes mast cell<sup>1</sup> against antigen induced disruption and liberation of mediators of allergy and anaphylaxis, acts as bronchodilator and antihistaminic<sup>2</sup>.

***Vasa* (*Adhatoda vasica*)**

It is *kapha-pitta* pacifying, acts as a bronchodilator<sup>3</sup>, expectorant, anti allergic<sup>4</sup>, antitussive<sup>5</sup> and anti Inflammatory<sup>6</sup>.

***Kantakari* (*Solanum xanthocarpum*)**

It is *kapha vata* pacifying, anti inflammatory, carminative, and expectorant. , anti-asthmatic<sup>7</sup>.

***Madhuyashti* (*Glycyrrhiza glabra*)**

It is *vata-pitta* pacifying, has cortisone like activity, good demulcent, antiasthmatic<sup>8</sup>, anti allergic<sup>9, 10</sup>, expectorant<sup>11</sup>, anti-inflammatory<sup>12</sup>, antitussive and immunomodulator.

Thus it can be concluded from this study that the compound drug *Shirishadi Kashaya* is useful in Bronchial Asthma. It is anti-allergic, bronchodilator and good expectorant as well as *Kapha, Pitta* and *Vata shamak* according to *Ayurveda*. *Tamak Shwas* is a *Kapha-vatatmak* and *Pitta sthan samudbhav* (originating from the place of Pitta) disease so *Shirishadi Kashaya* proved beneficial.

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**CONCLUSION**

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