



## A CASE SERIES: AYURVEDIC MANAGEMENT OF TAMAKA SHVASA (BRONCHIAL ASTHMA)

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### ABSTRACT

**Background-** Bronchial Asthma is a chronic inflammatory disease of airways of lungs. It is characterized by various and recurring symptoms reversible airflow obstruction and Bronchospasm. Modern science has developed many medicines like Doxophylline, Theophylline, various Corticosteroids, and Salbutamol. Yet these medicines come up with many adverse effects and they are also target specific. In Ayurveda Bronchial asthma is co-related with Tamaka Shvasa. Tamaka Shvasa is mainly caused due to the Vata and Kapha Dosha. Hence in management of Tamaka Shvasa, Vataghna and Kaphagna Chikita are needed. Kantakari is Vata-Kaphagna in nature. The drug is used as anti-asthmatics, hypoglycemic, anti-histaminics, anti-inflammatory, anti-spasmodic, hypotensive, anti-pyretic activity. **Methods-** Case series of 10 patients were managed with Kantakari Siddha Ghruta Snehapana followed by Virechana and Shamana Chikitsa. Assessment was done on the basis of PFT and IgE. **Result-** Improvement in PFT and Decreased IgE level will be stated in full paper. **Discussion And Conclusion-** After administration of Kantakari Sidha Ghruta, Virechana and Shamana Chikitsa, changes in PFT observed with changes in IgE, which is mention in full paper. ON this we concluded that Ayurvedic treatment is beneficial in treatment of Tamaka Shvasa.

**KEYWORDS :** Kantakari, Bronchial Asthma, Tamaka Shvasa, Virechana, PFT, IgE.

### INTRODUCTION

Bronchial Asthma is a chronic inflammatory disease of airways of lungs. It is characterized by various and recurring symptoms reversible airflow obstruction and Bronchospasm. Clinically it is manifested by cough, dyspnea and wheezing. Bronchial asthma is the episodic disease acute exacerbation with symptom free periods.

On the basis of stimuli initiating Bronchial asthma three broad etiologic types are 1] Extrinsic asthma [atopic/allergic] 2] Intrinsic asthma [idiosyncratic / non-atopic] 3] Mixed pattern. Asthma is a chronic inflammatory disorder of the airways in which many cells play a role in which particularly mast cells, eosinophils and T-lymphocytes. So IgE is marker in allergic asthma only.

### AIMS AND OBJECTIVES

#### AIM –

To evaluate the effect of “Kantakari Ghruta” followed by “Virechana” and Ayurvedic treatment in management of Tamaka Shvasa.

### OBJECTIVES-

#### Primary Objective-

1] To evaluate the effect of Kantakari Ghruta and Virechana on different parameter of Tamaka Shvasa.

#### Secondary Objective-

1] To see the changes in pulmonary function test [FEV1] by Spirometry before and after treatment.  
2] To see the changes in IgE before and after treatment.

### MATERIALS AND METHODS

A case series was planned on 10 patients of Tamaka Shvasa. Selected patients were screened with all diagnostic criteria including IgE and Spirometry. Firstly Dipana, Pachana, and Vata- Anulomana Chikitsa are given to all patients. After that Kantakari Sidha Grutapan is started for 7 days increasing manner. (1<sup>st</sup> dose was 30 ml) After Dipana-Pachana Chikitsa 2 days rest was given to all patients in that time Snehana with Til Tail and Nadi Swedana with Dashamula Kwath (externally) done. Then on 3<sup>rd</sup> day after Snehapana, Virechana is given

with “Ichhabhedi ras”. “Sansarjan Krama” is advised as per Mention in ayurvedic text.

### Criteria Of Diagnosis

- 1] Spirometry [FEV1]
- 2] Peak Expiratory Flow [PEF]
- 3] IgE

### Criteria Of Selection Of Patients-

1) Patients having respiratory rate in between 22 to 32 per minute will be included.

2) Chronic cases of bronchial asthma since 1 to 10 years will be included in study.

3) Positive test of reversibility

A] Symptomatic patients- an improvement of 60L / min or >20% in PEF, 10 minutes after inhalation bronchodilator. (Salbutamol)

B] Asymptomatic patient – 60L / min or > 20% fall in PEF, 10 minutes after provocation with 5-10 minutes of physical exercise followed by reversal upon inhalation of bronchodilator (Salbutamol) when assessed after 10 minutes.

4] patients with raised IgE (more than 250)

### Criteria Of Rejection

1) Patients below the 18 and above 50 years will be excluded from this study.

2) Patients with severe bronchial asthma.

3) Patients with poorly controlled Hypertension [ >160/100 mmHg], uncontrolled Diabetes Mellitus [ Blood sugar fasting > 130 mg / dl and post meal 250 mg, hypoxia [SPO2 less than 90%].

4] Active lung disease other than Bronchial asthma, major surgery within 2 weeks.

### Management

Rasapachaka Vati 2tab bd is given to the patients before starting Snehapana depending upon patient's Samaavastha and Triphala churn 5gm HS with lukewarm water for

Anulomana of Vata before Virechana. After that, "Kantakari Sidha Grutapana" is started for 7 days increasing manner. (1<sup>st</sup> dose was 30 ml) in early morning at 5.30 am to 6.00 am with lukewarm water. After that 2 days rest were given to all patients in that time Snehana with Til Tail (locally) and Swedana (externally) with Dashamulkwath Nadiswedana. Then on 3<sup>rd</sup> day Virechana is given with "Ichhabhedhi Rasa". All patients have Madhyam Shudhi according to Lakashana, Matra, Vega of Virechana. "Sansarjana Karma" is advised as per Mention in Ayurvedic text. As patients with Madhyam Shudhi five days Sansarjana Karma advised to all patients. Simhyadi Kwath 20ml QID is given after Sansarjana Karma for 30 days. (Simhyadi Kwath – Bruhati, Haridra, Vasa, Guduchi, Shunthi, Pipali, Bharangi, Nagarmotha used as a Kwath Dravya & Marich used as a Prakshep Dravya)

**Criteria For Assessment**

Criteria for assessment are as follow:

- 1) Clinical Parameters [ R.R. & SPO2]
- 2) PEFR
- 3) SMI
- 4) IgE
- 5) FEV1 value in Spirometry
- 6) MRC scale for dyspnea
- 7) Investigational parameter (ESR)

**OBSERVATIONS AND RESULT –**

PFT Parameters	Parameters Score			% of Relief (Diff/BT)
	BT	AT	Diff	
1 FEV1	659	884	225	34.14 %
2 FVC	671.1	900.6	229.5	34.19 %
3 FEV1/FVC	703	942	239	33.99 %
4 Lung age	786	1006	220	27.98 %
5 FEV25-75	489.9	699.2	209.3	42.72 %
6 SMI IN SEC	200/7	200/35	200/28	400 %
7 PEFR L / MIN	1240	2200	960	77.4 %
8 Eosinophil count %	50.8	32.9	17.9	35.236%
9 AEC cells/mcl	5653	4198	1455	25.73%
10 ESR mm/hr	273	105	168	61.53 %
11 R.R. / M	290	175	115	39.65 %
12 H.R. /M	1133	734	399	35.21 %
13 I.T. (IN SEC)	12	22	10	45.45 %
14 MRC SCALE	36	00	36	100 %
15 IgE (UI/ml)	5924	3895	2029	34.25 %
16 CRP (mg/dl)	22.3	6.6	15.7	70.40 %
17 Cholesterol (mg/dl)	1960	1470	490	25 %
18 Blood sugar level- random (mg/dl)	1297	1056	241	18.58 %

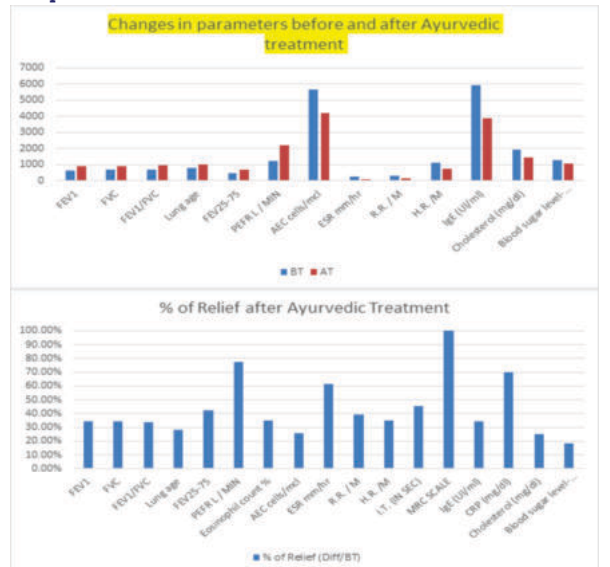
**Statistical Analysis:**

SN	PFT Parameter	Mean ± SD		Mean of diff. ± SD	Sed	t'	P
		BT	AT				
1	FEV1	65.9 ± 3.071	88.4 ± 3.62	-22.5 ± 5.148	1.628	13.822	<0.0001
2	FVC	67.110 ± 3.072	90.060 ± 3.613	-22.95 ± 5.073	1.604	14.306	<0.0001
3	FEV1 / FVC	70.300 ± 2.908	94.200 ± 3.853	-23.900 ± 4.508	1.426	16.765	<0.0001
4	Lung Age	78.600 ± 5.967	100.60 ± 3.658	-22.000 ± 5.292	1.673	13.148	<0.0001
5	FEV25-75	48.990 ± 3.651	69.920 ± 5.00	-20.930 ± 5.053	1.598	13.098	<0.0001

6	SMI	0.700 ± 0.8233	3.500 ± 0.9718	2.800 ± 1.033	1.033	8.573	<0.0001
7	PEFR	124.00 ± 11.738	220.0 ± 30.912	96.000 ± 38.064	12.037	7.975	<0.0001
8	Eosinophil count	5.080 ± 0.5138	3.290 ± 0.9725	1.790 ± 0.6574	0.2079	8.611	<0.0001
9	AEC	395.70 ± 66.202	244.00 ± 50.767	131.70 ± 60.639	19.176	6.868	<0.0001
10	ESR	27.300 ± 3.335	10.500 ± 2.550	16.800 ± 1.989	0.6289	26.712	<0.0001
11	R.R. / M	29.000 ± 1.826	17.500 ± 0.7071	11.500 ± 1.4534	25.365	25.365	<0.0001
12	H.R. /M	113.30 ± 4.029	73.400 ± 2.319	39.900 ± 4.795	1.516	26.316	<0.0001
13	I.T.	1.200 ± 0.4216	2.200 ± 0.4216	1.000 ± 0.4714	0.1491	6.708	<0.0001
14	MRC SCALE	3.600 ± 0.5164	0.000 ± 0.000	3.600 ± 0.5164	0.1633	22.045	<0.0001
15	IgE	592.40 ± 121.76	389.50 ± 94.235	202.90 ± 46.846	14.814	13.697	<0.0001
16	CRP	2.230 ± 0.6783	0.660 ± 0.2271	1.570 ± 0.8015	0.2534	6.195	0.0002
17	Cholesterol (mg/dl)	196.00 ± 13.449	147.00 ± 9.487	49.00 ± 7.379	2.333	21.00	<0.0001
18	Blood sugar level- random (mg/dl)	129.70 ± 13.047	105.60 ± 9.033	24.100 ± 12.538	3.965	6.078	0.0002

In Statistical Analysis Paired t test used for the all parameters before and after treatment. The test shows that above Ayurvedic treatment is found Statistically highly significant at p is < 0.0001. it also shows that Ayurvedic treatment is effective in management of Tamaka Shvasa.

**Graphical Presentation:**



**DISCUSSION**

Tamaka Shvasa is mainly caused due to the Vata and Kapha Dosha. While mentioning management Charaka explained that those diet and drugs having Kaph-Vataghna, Ushna and Vatanulomak properties are useful in Tamaka Shvasa. Triphala Churn 5 gm HS was administered to all patients with lukewarm water which is Tridoshaghna in nature with Vatanulomana property. Arundatta further says drugs having Deepan Pachana activities are used for management of Tamaka Shvasa. In this study Tablet Rasapachaka Vati was used 2tablets bd with lukewarm water. It acts as a Dipana and Pachana in nature. During Snehapana, "Kantakari Ghruta" was administered for 7days with lukewarm water. With help of Katu-Tikta Rasa, Katu Vipaka, Ushna Virya and Laghu Ruksha Guna treat Tamaka Shvasa because it is Vata Kapha Dosha dominance. Above all properties mention above i.e. Rasa, Virya, Vipaka, and Guna, Kantakari play best role in Kaphaghna properties. On other hand Ushna Virya it plays vataghna nature. Kantakari's Tikta and Katu Rasa, Ushna Virya and Katu Vipak, it is beneficial in Dipana and Pachana Chikitsa. "Sanskarsyanuvaranata" and "Yogavahi" because of these above two properties Gruta play important role in Tamaka Shvasa. Snehapana was given in early morning because early morning fall in the level of circulating adrenalin with decreased plasma cortisol concentration. Viramkala for 2 day was given which is important for Doshadravikaran and Kshtha Margavgaman for Shodhana Chikitsa. "Tamake Tu Virechanam" on the basis of this principle Virechna is given by Ichhabhedhi Rasa i.e. Shodhana Chikitsa followed by Sansarjana Krama. Simhyadi Kwath 20 ml QID was given with Lukewarm Water for the balancing of Tridosha. Simhyadi Kwath is Vata-Kaphagna in nature.

It is well recognized that obesity and asthma are epidemiologically link due to early endocrine disturbances. The relationship also observed between asthma and two metabolic syndromes are Diabetes & Hypertension which is responsible for subclinical asthma and hyperactivity of respiratory system. Neutrophils is most common abnormality found in patients who is suffering from asthma followed by increased eosinophils and erythrocyte sedimentation rate. INFs encoding genes may protect against infection and inflammatory diseases. Innate immunity is responsible for inflammation in asthma patients which is responsible for breathlessness. Immunoglobulin E and associated cellular responses are responsible for allergic airway diseases. In asthmatic patient, serum IgE level high than normal patients. Colonization of lung by bacteria, smoking, obesity, air pollution due to increased production of interleukine-6 may also stimulate CRP production in asthmatic patient which cause increase CRP level. Kantakari Gruta improve FEV1 value in Spirometry, PEFR, and decrease CRP, ESR, eosinophils count, IgE level by decreasing bronco-spasm and improving immunity.

**CONCLUSION**

Sanshodhana Chikitsa with Kantakari Ghrut is best drug of choice in management of Tamaka Shvasa after Dipana Pachana Chikitsa. Sanshamana Chikitsa also beneficial in Tamaka Shvasa for balancing the Tridosha. Simhyadi Kwath is best drug of choice.

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