

ORIGINAL RESEARCH ARTICLE - CLINICAL STUDY

Clinical Study of *Pathyadi Yoga* and *Bibhitaka Curna* in the management of *Tamakashvasa*

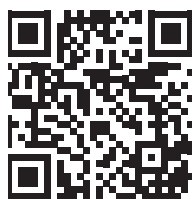
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ABSTRACT

Tamakashvasa is mentioned as one of the variety among *panchavidha shvasa* in ayurvediya classics. It is mentioned as chronic in nature and compared to bronchial asthma. It has been reported that 2-7% of Indians have asthma prevalence for hospitalizations and while considering Global scenario, fatal asthma has increased in the United States over the past 20 years. The Present study was done to assess the efficacy of *Pathyadi Yoga* and *Bibhitaka Curna* on *Tamakashvasa*. 30 patients taken under inclusion criteria from OPD & IPD of NIA, Jaipur were randomly divided into 2 groups of 15 patients in each group. Group-A and group-B patients were given *Pathyadi gutika* and *Bibhitaka gutika* respectively in a dose of 4 gm to keep in their mouth after food for three times a day for the duration of 30 days and left for 15 days without medicine. *Pathyadi gutika* contains *Pathya*, *Sunthi*, *Ghana*, *Guda* and *Bibhitaka gutika* contains *Bibhitaka*, *Guda*. Assessments of the results were done on the basis of subjective parameters then results were analyzed by using suitable statistical test. Both groups showed highly significant effects on most of the subjective parameters. Group A showed significant improvement in symptoms Cough ($p=0.000051$), Frequency of Bouts of Respiration ($p=0.000748$), Duration of Attack ($p=0.000926$), Comfort after Expectoration, ($p=0.001316$), while Group B showed significant improvement in symptoms Duration of Attack ($p=0.000013$), Cough ($p=0.000035$), Comfort after Expectoration ($p=0.000748$), Pain in the Chest and Flank ($p=0.002957$), Frequency of Bouts of Respiration ($p<0.00001$) and Unable to Breathe while Lying ($p=0.000074$).



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On symptomatic analysis and percentage wise analysis in some symptoms, better results were observed in Group-B by *Bibhitaka gutika*. So it is concluded that *Bibhitaka gutika* is more effective than *Pathyadi gutika* in management of *Tamakashvasa*.

Keywords : *Tamakashvasa*, *Bibhitaka gutika*, *Pathyadi gutika*, Cough.

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Introduction:

Tamakashvasa is mentioned as one of the variety among *panchavidha shvasa*^[1]. *Tamakashvasa* is a *svatantra vyadhi* and having its own etiology, pathology and management. It is mentioned as chronic in nature and compared to bronchial asthma.

Vata and *kapha* are the two key pathological factors involved in the *samprapti* of *tamakashvasa*^[2]. The predominant morbidity of *vata* and *kapha dosha*, which stems out from the *pittasthana*^[3], afflicts the *rasa dhatu* disturbing the function of *pranavaahasrotas*^[4]. Then, it leads to the manifestation of *tamakashvasa*. The sequential administration of *snehana*, *swedana*, *sodhana*, *samana*, *bruhmana* and *rasayana* line of treatment in a chronological order is explained in *Carakasanhita*. Among these different therapeutic procedures, *samana* line of treatment plays an important role and is very easy and also effective. Plenty of research works have been carried out in relation to the *samana* line of treatment in ayurveda, but the therapeutic effect of this management without the *sodhana* procedure in *tamakashvasa* is yet to be explored. To achieve *samyata* of vitiated *dosha*, is the main aim of treatment. To achieve this, *sodhana* and *samana* therapies are described^[5]. Though *sodhana* is better than *samana*, but it cannot be applied in every individual. So before treatment, one should consider the status of *dosha* as well as physical status of the patients. Hence, an attempt is made to know about the therapeutic effect of *Pathyadi yoga* and *Bibhitaka Curna* as a *samana aushadhi* in *Tamakashvasa*, where *dosha* is in fewer amounts, without any *sodhana* procedures as *purvakarma*. *Tamakashvasa* is identified as *yapya* or *kastasadhya* and its treatment has to be continued for a longer period. *Pathyadi yoga* and *Bibhitaka Curna* are such herbal combination mentioned in *ashtangahridayam*, which is said to be *samana yoga* for *shvasa*.

It has been reported that 2-7% of Indians have asthma prevalence for hospitalizations and while considering Global scenario, fatal asthma has increased in the United States over the past 20 years^[6]. The social and economic burden associated to asthma is severe. In order to decrease

these burdens, *tamakashvasa* demands distinct remedy.

Aims and Objectives

1. To understand the conceptual etiopathogenesis of *tamakashvasa*.
2. To understand fundamental principle of *muhurmuhuh kala*.
3. To evaluate the safety of *Pathyadi yoga* and *Bibhitaka curna*.
4. To evaluate the efficacy of *Pathyadi yoga* and *Bibhitaka curna*.

Materials And Methods

31 patients taken under inclusion criteria from OPD & IPD of NIA and bombaywala hospital, Jaipur, Rajasthan were randomly divided into 2 groups of 15 patients in each and subjected to open, randomized, interventional type of clinical study after taking their written consent. Only 30 patients completed the scheduled regimen. Group-A and group-B patients were given *Pathyadi gutika* and *Bibhitaka gutika* respectively in a dose of 4 gm to keep in their mouth after food for three times a day for the duration of 30 days and left for 15 days without medicine. Patients were examined for the change in the signs and symptoms on 0 days, 30th days and 45th days then results were analyzed by using suitable statistical test.

Assessments of the results were done on the basis of following subjective parameters viz. frequency of bouts of respiration, duration of attack, intensity attack, discomfort in breathing, pain in the chest and flank, cough, *ghurghuraka* sound, comfort after expectoration, unable to breath while lying, comfort on sitting, desire of hot comforts and unable to sleep.

Inclusion Criteria

1. Patients of either sex with the age group 16 to 60 years
2. Patients having classical signs and symptoms of *tamakashvasa* (A.Hr.Ni 4/6-10 and Ca.Ci.17/55-62)

3. Diagnosed and confirmed cases of Bronchial Asthma
 4. Patients suffering with mild to moderate Bronchial asthma.
 5. Patients with evidence of malignancy
 6. Patients with other cardiac complains
 7. Patients with poorly controlled Diabetes Mellitus (HbA1c > 10%)
 8. Patients suffering from other systemic illness
 9. Any other condition which the principal Investigator thinks may jeopardize the study.
- Exclusion Criteria**
1. Patients suffering from *mahashvasa*, *urdhvashvasa* and *chinnashvasa*
 2. Patients with peak expiratory flow rate (PEFR) < 50% and/or forced expiratory volume in 1 second (FEV1) < 50% of the predicted value

Table No. I - Ingredients of *Pathyadi gutika*^[7]

Name of drug	Latin name	Proportion	Part Used
1) <i>Pathya</i>	<i>Terminalia chebula</i> Retz	1 part	Fruit
2) <i>Sunthi</i>	<i>Zingiber officinale</i> Roxb.	1 part	Rhizome
3) <i>Ghana</i>	<i>Cyperus rotundus</i> Linn.	1 part	Rhizome
4) <i>Guda</i>	<i>Saccharum officinarum</i> Linn (concentrated preparation)	2 part	

Table No. II - Ingredients of *Bibhitaka gutika*^[8]

Name of drug	Latin name	Proportion	Part Used
1) <i>Bibhitaka</i>	<i>Terminalia bellerica</i> Roxb	1 part	Fruit
2) <i>Guda</i>	<i>Saccharum officinarum</i> Linn (concentrated preparation)	2 part	

Results

Table No. III - Effects on subjective parameters in 15 patients of Group-A

S. No.	Subjective Parameters	Mean Score			Change in %	SD ±	SE ±	t-value	p-value
		BT	AT	Diff.					
1	Frequency of Bouts of Respiration	2.47	0.60	1.87	75.7	1.68	0.43	4.29	0.000748
2	Duration of Attack	2	0.67	1.33	66.5	1.23	0.32	4.18	0.000926
3	Intensity of Attack	1.87	0.93	0.94	50.27	0.88	0.23	4.09	0.001103
4	Discomfort in Breathing	2.2	1.07	1.13	51.51	0.74	0.19	5.90	0.000039
5	Pain in the Chest and Flank	0.53	0.33	0.20	37.7	0.56	0.14	1.38	0.189227
6	Cough	1.73	0.40	1.33	76.87	0.89	0.23	5.74	0.000051
7	Ghurghuraka Sound	2.40	1.40	1	41.67	0.92	0.24	4.18	0.000926
8	Comfort after Expectoration	1.4	0.6	0.8	57.14	0.77	0.2	4	0.001316
9	Unable to Breathe while Lying	1.27	0.73	0.54	42.51	0.74	0.19	3.23	0.006049
10	Comfort on Sitting	0.93	0.60	0.33	35.48	0.62	0.15	2.09	0.055347
11	Desire of Hot Comforts	1.87	1.27	0.60	32.08	0.63	0.16	3.67	0.002523

12	Unable to Sleep	1.40	0.87	0.53	37.85	0.99	0.25	2.09	0.055347
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Table No. IV - Effects on subjective parameters in 15 patients of Group-B

S. N.	Subjective Parameters	Mean Score			Change in %	SD ±	SE ±	t-value	p-value
		BT	AT	Diff.					
1	Frequency of Bouts of Respiration	2	0.73	1.27	63.5	0.59	0.15	8.26	<0.00001
2	Duration of Attack	3.13	0.67	2.46	78.59	1.46	0.38	6.55	0.000013
3	Intensity of Attack	1.73	0.87	0.86	49.71	0.64	0.16	5.24	0.000125
4	Discomfort in Breathing	2.33	1.33	1	42.85	1.07	0.27	3.62	0.002786
5	Pain in the Chest and Flank	1.27	0.46	0.81	63.7	0.86	0.22	3.59	0.002957
6	Cough	2	0.60	1.40	70	0.91	0.23	5.96	0.000035
7	Ghurghuraka Sound	2.73	2.13	0.60	21.97	1.05	0.27	1.47	0.163675
8	Comfort after Expectoration	1.8	0.6	1.2	66.67	1.08	0.28	4.29	0.000748
9	Unable to Breathe while Lying	1.40	0.60	0.80	57.14	0.56	0.14	5.53	0.000074
10	Comfort on Sitting	1.20	0.60	0.60	50	0.91	0.23	2.55	0.023117
11	Desire of Hot Comforts	1.93	1.47	0.46	23.83	0.74	0.19	2.43	0.029143
12	Unable to Sleep	1.87	1	0.87	46.52	1.12	0.29	2.98	0.009938

Table No. V - Comparative efficacy in different signs and symptoms between two groups

S. N.	Signs & Symptoms	t-calculated	t-table value	P-value	Result
1	Frequency of bouts of respiration	1.30098	2.048	0.203872	NS
2	Duration of attack	-1.68837	2.048	0.102449	NS
3	Intensity attack	0.23664	2.048	0.814656	NS
4	Discomfort in breathing	0.39662	2.048	0.694658	NS
5	Pain in the chest and flank	-2.26011	2.048	0.031782	HS
6	Cough	-0.20174	2.048	0.841581	NS
7	Ghurghuraka sound	1.65503	2.048	0.109086	NS
8	Comfort after expectoration	-1.16398	2.048	0.254257	NS
9	Unable to breath while lying	-1.21395	2.048	0.234906	NS
10	Comfort on sitting	-0.93909	2.048	0.355716	NS
11	Desire of hot comforts	0.52915	2.048	0.600872	NS
12	Unable to sleep	-0.86112	2.048	0.39487	NS

Discussion

In comparative efficacy between the groups, significant difference was found only in one symptom i.e. in pain in the chest and flank. In all other signs and symptoms, no significant differences were found in between the groups. Although both groups had significant result, there was no overall significant difference in between the groups on statistical analysis. On symptomatic analysis and percentage wise analysis in some symptoms, better results were observed in Group-B by *Bibhitaka gutika*. Probable mode of action of the drugs *Pathyadi gutika*

The treatment or drugs should be *kapha-vataghna*, *ushna* and *vatanulomana* in *shvasaroga*. The *ruksha* and *laghu guna* of the ingredients of *Pathyadi gutika* act on the elevated *kapha* and *snigdha*, *ushna guna* on *Vata* heping in *vatanulomana*. Its *deepana* & *pacana karma* by *katu-tikta rasa* improve *agni* so that formation of *ama* is stopped leading to the formation of *suddharasa* and *kaphadhatu*. *Ushna veerya* does *kapha-vatasamana*. Obstruction from the *srotas* is removed by its *srotasam vivandhahara* properties.

Probable mode of action of the drugs *Bibhitaka gutika*

The *rukshna* and *laghu guna* of the ingredients of *Bibhitaka gutika* act on the elevated *kapha* and *snigdha*, *ushna guna* on *vata* heping in *vatanulomana*. *Madhura rasa* of *guda* pacify the elevated *vata*. *Kasaya* and *kshara* properties pacify the elevated *kapha* and its *bhedana karma* removes its obstruction from the *srotas*. *Ushna veerya* does *kapha-vatasamana*.

Conclusion

In etiopathogenesis of *tamakashvasa*, *vata* and *kapha* are the two key pathological factors. *Muhuh* means again and again or repeatedly. Especially *muhuh kala* is indicated in *shvasaroga* as it is also due to the dysfunction of *pranavayu*. *Pathyadi yoga* and *Bibhitaka curna* are found highly safe in *tamakashvasa*. Significant result (p value <0.05) was found in the both groups - *Pathyadi yoga* and *Bibhitaka curna* in *tamakashvasa*. In the

comparison between groups, no significant difference was found. Thus the treatment in both groups was found equally effective.

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सारांशः

आयुर्वेदिक संहिताओं में वर्णित तमक श्वास रोग पंचविध श्वास का एक प्रकार है। यह एक जीर्ण व्याधि है, एवं इसकी तुलना आधुनिक विज्ञान में ब्रॉन्कियल अस्थमा व्याधि से की गई है। एक रिपोर्ट के अनुसार २-७% भारतीयों को अस्पताल में अस्थमा के आघात से भर्ती किया जाता है, और जबकि वैश्विक परिदृश्य पर विचार करने पर पिछले २० वर्षों में अस्थमा के रोगियों की संयुक्त राज्य अमेरिका में काफी वृद्धि हुई है। इसलिए वर्तमान अध्ययन तमक श्वास पर पथ्यादि गुटिका और बिभीतक चूर्ण की प्रभावकारिता का आकलन करने के लिए किया गया था। ३० मरीजों का राष्ट्रीय आयुर्वेद संस्थान, जयपुर के बहिरंग एवं अंतरंग विभाग में परीक्षण किया गया। प्रत्येक समूह में १५-१५ मरीजों को रखा गया। समूह-अ के रोगियों को पथ्यादि गुटिका और समूह ब के रोगियों को बिभीतक चूर्ण १५ दिनों के लिए दिया गया। परिणामों का आकलन तमक श्वास रोग के लक्षणों के आधार पर एवं उपयुक्त सांख्यिकीय परीक्षण का उपयोग करके किया गया। दोनों समूहों के अधिकांश लक्षणों में महत्वपूर्ण प्रभाव देखा गया एवं समूह ब के कुछ लक्षणों में रोगसूचक विश्लेषण और प्रतिशत वार विश्लेषण पर, बेहतर परिणाम पाया गया। अतः यह निष्कर्ष निकाला जा सकता है कि परीक्षण औषध बिभीतक चूर्ण पथ्यादि गुटिका की तुलना में अधिक प्रभावी है।