



Clinical Study

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A clinical study of *Shunthyadi churna* in the Management of *Tamaka shwasa* W.S.R. to Bronchial Asthma

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ABSTRACT

In classics *Tamaka Shwasa* is *Pitta Sthana Samudbhava Vhadhi*, mainly affected *Doshas* are *Vata* and *Pitta*. In modern science *Tamaka Swasa* is correlate with bronchil ashtha, Symptoms of *Tamaka Swasa* is nearly similar to. Bronchial asthma a chronic inflammatory disorder of the airways in which the chronic inflammation causes an associated increase in airway hyperresponsiveness that leads to recurrent episodes of asthmatic exacerbation. Modern science has no permanent cure of *Tamaka Swasa*, thats why it is necessity to search herbal and herbo-minaral preparations for the treatment of disease. It is safe and effective in asthma. *Shunthyadi Churna* described in *Yogratnakara* for the treatment of *Shwasa*. **Aim:** Role of *Shunthyadi Churna* in treatment of *Tamaka Shwasa*. **Materials and Methods:** Total 23 patients of *Tamaka Shwasa* age group of 18 to 60 years fulfilling the inclusion criteria were selected for trial. **Discussion:** Properties having *Shuthyadi Churna* is *Tikta Katu Rasa*, *Laghu* and *Tikna Guna* (light and penetrating properties), *Ushna Virya* (hot potency) and *Vatakaphagna* (decrease *Vata* and *Kapha* *Dosha*). *Shuthyadi Churna* is effective in break down the *Samprapti* of *Tamaka Swasa* and effective remedy for the patient of bronchial asthma.

Keywords: Ayurveda, Bronchial asthma *Shunthyadi Churna*, *Tamaka Shwasa*.

INTRODUCTION

Research in respiratory diseases is necessity in today's era because of air pollution, dietary habits, crowds, low immunity of peoples etc. It is prior to such option of modality for the management of bronchial asthma. Nowadays bronchial asthma is leading causes of hospitalization among children and adolescents. India has an estimated 15-20 million asthmatics. In India, rough estimates indicate a prevalence of between 10% and 15% in 5-11 year old children [1]. Actually asthmatic problem is increasing day by day due to environmental smoke and air pollution resulting from urbanization. Modern science has symptomatic relief for this ailment, but not any type of permamnt cure. Ayurveda is great science of life having lots of management for cure and prevent the chronic diseases.

Herbal remedy *Shuthyadi Churna* –a polyherbal compound have *Shunthi* (*Zingiber officinale*), *Marich* (piper nigrum) *Twaka* (*Cinnamomum zeylanicum*) *ela* (*Elettaria cardamomum*), and *Pippali* (*Piper longum*). These drugs are *Ushana Virya* (hot potency) and *Vata kapha hara* properties. i.e *Ushana*, *Tikshna*, *Katu Rasa*. In *Tamaka Swasa* mainly involved *Doshas* are *Vata* and *Pitta* also disease is *Amashaya Samudhbhava*, so *Shuthyadi Churna* by its properties break down *Samprapti* of disease and cure the ailment [2]. *Shunthi Zingiber officinale* having broncho-dilatory and anti-inflammatory effect on bronchioles [3].

AIMS AND OBJECTIVE

Role of poly herble formulation *Shunthyadi Churna* in the treatment of *Tamaka Shwasa*

MATERIALS AND METHOD

A total of 23 patients of age of 18 to 60 years fulfilling the diagnostic of *Tamaka Shwasa* were selected and registered in this study from the OPD and IPD of Kayachikitsa department, IPGT and RA, Jamnagar. The study was carried out after obtaining ethical clearance of Institutional Ethics Committee (PGT/7/-A/Ethics/2014-15/1538 dated 02-09-2014). It was also registered with Clinical Trial Registry of India (CTRI) vide CTRI/2016/06/007053 and prior to registration informed written consent of each patient was taken. For diagnosis, a detailed medical history was taken and physical examination was done in detail according

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to both modern and Ayurvedic clinical methods and was noted down in specially prepared proforma.

Inclusion criteria

- Patients having signs and symptoms of *Tamaka Shwasa* described in Ayurvedic texts and modern texts will be included.
- Age group: 16 – 60 years
- Chronicity less than 10 years
- Uncomplicated cases of *Tamaka Shwasa*

Exclusion criteria

- Patients of age less than 16 and above 60 years.
- The patient suffering from tuberculosis, Cardiac complains, Endocrine disorders like Diabetes mellitus, Hypo or Hyperthyroidism, etc
- Patients having complications like cor-pulmonale, emphysema, pneumonia, malignancy, etc and breathlessness due to severe anaemia, renal failure, etc

Trial drug details

Drug and posology

The details of the trial drug are as given below. Table no-1

Shunthyadi Churna in the dose of 3gm with honey was administered 3 times a day after food for a period of 6 weeks.

Pathyapathya was advised to all the patients as per classics [4]. After completion of treatment, patients were asked to follow up for 2 weeks.

Shunthyadi Churna were procured from the pharmacy of IPGT and RA, Gujarat Ayurved University, Jamnagar.

Criteria of assessment [5]

The enrolled volunteers were assessed at baseline (day 0 visit) and then after the end of the trail, that is the 6 weeks of medication. Classical symptomatology of the disease *Tamaka Shwasa* and cardinal symptoms of Bronchial asthma were taken as subjective criteria of *Rogabala* for assessment. Laboratory investigations like CBC with Absolute Eosinophil count, PEFr were taken as objective criteria for assessment. Improvement in *Rogabala* along with *Deha, Agni & Chetasabala* was considered for assessment.

Data presentation

General data was subjected to suitable statistical analysis such as wilcoxon Signed Rank test for non parametric paired data, unpaired t-test for quantitative unpaired data. After preparing the master chart of all the required data in Microsoft excel work sheet, statistical calculations were made with the help of Sigma stat 3.5 software and in stat 3 software. The results were interpreted as significant $p < 0.05$, highly significant $p < 0.01$, very highly Significant $p < 0.001$, insignificant $p > 0.05$. Considering the relief in major symptoms and improvement in the quantity and quality of semen, the subjects were divided into groups 0% - improvement as no change, < 25 % - improvement as mild positive response, 26 -50 % - improvement as moderate positive response, 51- 75% - improvement as marked positive response, 75% - 100%- improvement as excellent response to assess the total efficacy of each therapy.

OBSERVATIONS

A total of 23 patients of *Tamaka Shwasa* were registered in this trial, out of which 21 patients completed the course of the treatment.

Maximum patients in this trial from age group of 41-50 year coming from poorly socio-economically area 66.66%, having urban 71.43 %lifestyle and poorly educated, they have dusty (76.19) surround residence. Among them 57.14 % have addiction of smoking tobacco, and 52.38% have family history of asthma (Table no. 3-6). As chief complaint *Shwasakastata* was observed in 100% patients, *Kasa* in 95.23%, *Kaphanishthivanam* was found in 52.38% patients, *Peenasa* was found in 90.47% patients, *Parshvashula* was observed in 33.33% patients. Maximum numbers of patients included in the trial (48.78%) were suffering from Bronchial asthma for 1 to 5 years. Maximum numbers of patients (72.56%) were taking aerosol PEF ranged <60 was observed in majority of the patients (58.32%) Results In all the symptoms related to *Shwasakastata*, trial drug showed a remarkably high percentage improvement. Parameters like frequency of *Shwasa Vega*, duration of attack, *Pranavaha Srotodusti Lakshanas* and use of emergency medicine were reduced by 61.11%, 39.68%, 74.21% and 87.70% respectively. *Kasa and Peenasa* was reduced by 46.03% and 56.35% respectively (Table no. 2). The difference of decrease in AEC was statistically significant. ($P < 0.01$). There was an increase in the P.E.F.R. by 33.33% There was no any statistically significant changes were observed. PEF was improved by 13.60 %.(Table -3)

Effect on other Hematocrits showed that Haemoglobin concentration and Lymphocyte count, absolute Eosinophils count (21.13% ↓), as well as on ESR (1.26% ↓), showed very good result on TLC (6.26%↓) which was statistically significant, may be better in inflammatory condition. (Table no-4)

Effect on other Biochemical Values showed that statistically significant changes were observed in alkaline phosphatage which was reduced by 1.5%. S. Triglyceride, S. Creatinine and S. Uric acid was also reduced percentage wise but no statistically significant. Effect on Spirometry Readings showed that, were mildly improved percentagewise but no any statistically significant change was found.

Probable mode of action of *Shunthyadi Churna* [6]

The drug *Shunthyadi Churna* consists many ingredients which excellently balancing each other in *Rasa-panchaka* and enhancing the *Vata-Kaphahara, Deepana, Pachana* and *Vatanulomana* properties. *Vata-Kaphahara* property of most of the content alleviates both *Vata* and *Kapha*, which are the main *Doshas* in the pathogenesis of *Tamaka Shwasa*. The main factor in this disease as in many other diseases is *Ama* and the *Deepana-Pachana* properties of the drug will digest the *Ama* by kindling the *Jatharagni* as well as *Rasagni* and *Bhutagni*. Further the *Shothahara Karma* of most of the contents will neutralize the *Srotorodha* in *Pranavaha Srotas* due to *Shotha* created by *Sama Vata*.

The *Dosha-Prashamana* effect (*Shunthi, Pippali, Maricha, Nagadala, Tvak*) acts on the main *Doshas* which contribute to the *Samprapti* viz. *Vata* and *Kapha*. *Deepana-Pachana Karma* (*Shunthi, Pippali, Maricha, Nagadala, Sukshaila*) digest *Ama.Vatanulomana* property (*Shunthi, Pippali*) maintains the normal flow of *Vata*. *Shwasa, Kasa, Shothahara Prabhava* of all the ingredients act on the symptoms. *Srotorodhnivarana Prabhava* (*Shunthi, Maricha*) removes *Srotorodha* from the *Pranavaha* and *Rasavaha Srotasas*.

The pharmacological studies already reported on the individual drugs also favour its effect in disease Bronchial Asthma like *Shunthi* has anti-inflammatory, anti-microbial, immunomodulatory, hypolipidemic, and anti-viral activity [7]. *Pippali* has anti-inflammatory, anti-asthmatic, anti-depressant, anti-bacterial, analgesic, anti-oxidative and immunomodulatory activity [8]. *Maricha* has anti-asthmatic, anti-microbial, anti-oxidant, anti-inflammatory, Hepato-protective, digestive, anti-depressant, immunomodulatory and effect of piperine on metabolism [9]. *Nagadala* has anti-allergic, anti-filarial, anti-bacterial, gastro-protective, anti-oxidant, immunomodulatory and anti-

asthmatic effect [10]. *Tvak* has anti-inflammatory, Anti-bacterial, Gastro-protective, Anti-oxidant and lipid peroxidation activity [11]. *Ela* has anti-asthmatic, gastro-protective activity [12].

Table 1: Ingredients of *Shunthyadi Churna*

Drug Name	Botanical Name	Ratio	Part Used
<i>Shunthi</i>	<i>Zingiber officinale</i>	6 parts	Rizome
<i>Pippali</i>	<i>Piper longum</i>	5 parts	Fruit
<i>Maricha</i>	<i>Piper nigrum</i>	4 parts	Fruit
<i>Nagadal(Kalkatti)</i>	<i>Piper bettle</i>	3 parts	<i>Patra</i>
<i>Tvaka</i>	<i>Cinnamomum zeylanicum</i>	2 parts	<i>Tvaka</i>
<i>Ela</i>	<i>Elettaria cardamomum</i>	1 parts	Fruit
<i>Sharkara</i>	--	21 Parts	Powder

Table 2: General observation in this trial

content	Detail	No of Patients	Percentage
Age	16-30	1	4.76
	31-40	6	28.57
	41-50	7	33.33
	51-60	7	33.33
Sex	Male	13	61.90
	Female	8	38.10
Education	Uneducated	1	4.76
	Primary to Higher Secondary	14	66.66
	Graduate to Post Graduate	6	28.57
occupation	House-wife	7	33.33
	Service class	2	9.52
	Labourer	6	28.57
	Business	6	28.57
Surrounding	With dust	16	76.19
	No dust	5	23.81
Habitat	Urban	15	71.43
	Rural	6	28.57
Desh	<i>Vyadhita</i> in brith place	10	47.62
	<i>Vyadhita</i> in <i>samvrith</i> place	3	14.28
	<i>Vyadhita</i> after coming Jamnagar	8	38.10
Dominancy	<i>Madhura</i>	8	38.10
	<i>Amla</i>	4	19.04
	<i>Lavana</i>	2	9.52
	<i>Katu</i>	0	0
	<i>All</i>	7	33.33
Diet Habit	At regular time	9	42.85
	At irregular time	12	57.14
Working place	Sitting	12	57.14
	Physical	6	28.57
	House wife	7	33.33
	With dust	16	76.19
	Addiction	Smoking	1
	Tobacco chewing	12	57.14
	No addiction	8	61.90
Day Sleep	Present	17	80.95

	Absent	4	19.04
Family History	Present	10	47.61
	Absent	11	52.38
Vayayma Shakti	<i>Pravara</i>	0	0
	<i>Madhyama</i>	5	23.80
	<i>Avara</i>	16	76.19
Ahara	<i>Guru</i>	18	85.71
	<i>Amapradosha</i>	11	52.38
	<i>Vistambhi</i>	14	66.66
	<i>Sheeta</i>	14	66.66
	<i>Abhishyandi</i>	18	85.71
Vihara	<i>Raja</i>	20	95.23
	<i>Dhuma</i>	6	28.57
	<i>Pragvata</i>	13	61.90
	<i>Chinta</i>	13	61.90
Precipiating	<i>Sheeta</i>	17	80.95
	<i>Varsha</i>	19	90.47
	<i>Ushna</i>	0	0
Chief complains	<i>Shwaskastata</i>	21	100
	<i>Kasa</i>	20	95.23
	<i>Kaphanisthivan</i>	11	52.38
	<i>Peenasa</i>	19	90.47
	<i>Parshvashula</i>	7	33.33
Associate complain	<i>Kasa</i>	20	95.23
	<i>Kasateh Shleshmanirharana</i>	11	52.38
	<i>Krachhen Bhashitam</i>	9	42.85
	<i>Lalate Sweda</i>	12	42.85
	<i>Vishushkasyta</i>	14	66.66
	<i>Moha</i>	2	9.52

Table 3: Effect Therapy on Spirometry Readings of 21 Patients

Parameter	Mean Score		% of Change	S.D.	S.E.	T	P
	BT	AT					
FVC	80.00	81.14	2.79	13.44	2.93	-0.390	0.701
FEV1	64.86	67.10	6.60	9.30	2.03	-1.103	0.283
FEV1%	84.19	86.67	5.39	12.22	2.67	-0.928	0.364
PEF	53.38	58.19	13.60	11.95	2.61	-1.844	0.080

Table 4: Effect of therapy on the Haematocrit Values of 21 Patients

Parameter	Mean Score		% of Change	S.D.	S.E.	T	P
	BT	AT					
Hb	13.66	13.61	0.28 ↓	0.67	0.15	0.29	0.773
TLC	7666.67	7076.19	6.26 ↓	1192.86	260.30	2.27	0.035
N	57.29	59.14	3.99 ↑	4.60	1.00	-1.85	0.079
L	32.38	33.43	6.83 ↑	4.90	1.07	-0.98	0.339
E	7.86	5.81	21.13 ↓	2.89	0.63	3.25	0.004
M	2.62	2.57	0.79 ↓	0.70	0.15	0.33	0.748
PCV	40.28	39.98	0.73 ↓	1.81	0.40	0.77	0.450
RBC	4.93	4.68	4.75 ↓	0.90	0.20	1.29	0.211
Platelets	317.14	325.14	2.75 ↑	29.20	6.37	-1.26	0.224
ESR	27.14	18.95	1.26 ↓	20.76	4.53	1.81	0.086

Table 5: Effect on *Dehabala* and *Chetabala*

<i>Dehabala</i>			
<i>Balavriddhi</i>	21	56.35↑	HS
<i>Swar Varna Yoga</i>	21	42.86↑	S
<i>Sharira Upachaya</i>	21	50.00↑	HS
<i>Chetasbala</i>			
<i>Nidra Labho Yathakalam</i>	21	80.95↑	HS
<i>Sukhen Cha Pratibodhanam</i>	21	64.29↑	HS
<i>Mano Budhi Indriya Avyapatti</i>	21	47.62↑	S
<i>Vaikarika Swapna Adarshan</i>	21	23.81↑	NS

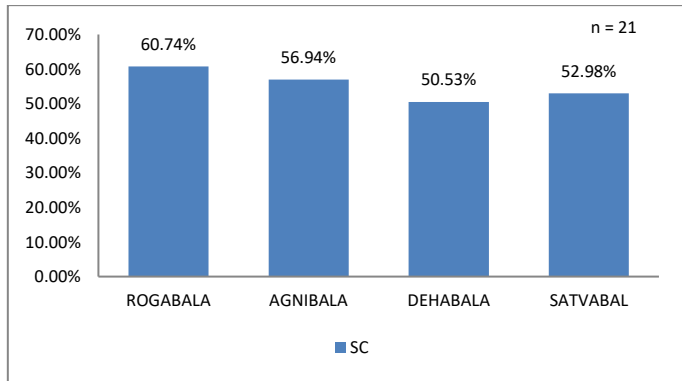


Chart 1: Overall Effect of the Therapy

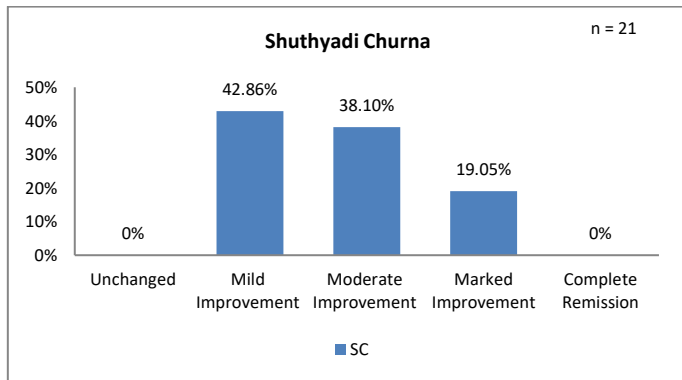


Chart 2: Overall Assessment

REFERENCES

1. <http://www.who.int/mediacentre/factsheets/fs206/en/> accessed date 21/6/18. 2.30pm.
2. Gabrielian ES, Narimanian MZ, Asianian G. A Placebo controlled double blind study with an Ayurvedic drug Pulmoflex in brochial asthma. *Phytomedica*. 2004; 5:45-9.
3. Khare CP. 1st ed. New york: Spinger Science. Indian medicinal plants -an illustrated discinary, 2007; pp. 15-19.
4. Charaka Samhita Chakrapani Tika by Dr. Ramharsh Shingh, Chowkhamba Surbharti Prakashana, Varanasi- Chikitsasthana, 17/55-64: 535.
5. Mali Pavan *et al.* A clinical study on the effect of *Shireeshady Avaleha* and *Virechana Karma* in the management of *Tamaka Shwasa*. MD Thesis, IPGT and RA, Jamnagar, 2004.
6. Lakshmiapati Shastri. *Yogaratanakara* edited with Vidhyotini Hindi commentary by Brahmasankara Shastri, published by Chaukhambha Prakashana, Varanasi (2010), Uttar Khanda *Shwasa Chikitsa*- 5.
7. Agrahari P. A brief study on *Zingiber officinale* -A review. *Journal of Drug Discovery and Therapeutics*. 2015;3(28).
8. Nisar Ahmad *et al.* Biological role of *Piper nigrum* L. (Black pepper): A review. *Asian Pacific Journal of Tropical Biomedicine*. 2012; S1945-S1953.

9. Damanhoury ZA, Ahmad A. A Review on Therapeutic Potential of *Piper nigrum* L. (Black Pepper): The King of Spices. *Med Aromat Plants*, 2014; 3:161. doi:10.4172/2167-0412.1000161
10. Rekha VP, Kollipara M, Gupta BR, Bharath Y, Pulicherla K. A review on *Piper betle* L.: Nature’s promising medicinal reservoir. *American Journal of Ethnomedicine*. 2014;1(5):276-89.
11. Vetal S, Bodhankar SL, Mohan V, Thakurdesai PA. Anti-inflammatory and anti-arthritic activity of type-A procyanidine polyphenols from bark of *Cinnamomum zeylanicum* in rats. *Food Science and Human Wellness*. 2013;2(2):59-67.
12. Jafri MA, *et al.* Evaluation of the gastric antiulcerogenic effect of large cardamom (fruits of *Amomum subulatum* Roxb). *Ethnopharmacol*. 2001; 75(2-3):89-94.

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