IAMJ

INTERNATIONAL
AYURVEDIC
MEDICAL JOURNAL

Research Article | ISSN: 2320-5091 | Impact Factor: 6.719

CLINICAL STUDY OF KANTKARI AVLEHA AND VASA AVLEHA IN THE MANAGEMENT OF TAMAK SHWASA W.S.R TO BRONCHIAL ASTHMA

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https://doi.org/10.46607/iamj08p5022020
(Published online: January 2021)
Open Access

Article Received: 02/02/2020 - **Peer Reviewed:** 05/02/2021 - **Accepted for Publication:** 09/02/2021
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ABSTRACT

Asthma is a chronic inflammatory disease which causes the lining of the airways to become swollen and inflamed, which further leads to production of thick, sticky mucous. These changes further cause the airways to become narrow, making it difficult for the patient to breathe properly. In this study, efficacy of formulations like *Vasavaleha* and *Kantakari Avaleha* are studied in the patients of *Tamaka Shwasa* w.s.r to bronchial asthma. *Tamaka Shwasa* is a *Yapya Vyadhi.* The etiopathogenesis, signs, and symptoms of *Tamaka Shwasa* may be correlated with Bronchial Asthma. Each patient reacts differently to the factors that trigger asthma and are treated symptomatically. Asthma is the most common chronic allergic disorder in childhood and third leading cause of hospitalization under the age of 15 years. As it is a *Kapha-Vata* predominant disorder, Ayurvedic medicine may help to decrease the recurrence, improve immunity, and check symptoms naturally. With this aim, a clinical study was undertaken on two groups for a duration of 6 weeks. The *Kantakari Avaleha* and *Vasa Avaleha* were given orally, separately in both the groups. All the patients were kept under strict dietary control during the treatment. The observation on the effect of therapy was encouraging and showed less recurrence.

Keywords: *Kantakari Avaleha*, childhood asthma, *Tamaka Shwasa*, *Vasa Avaleha*

INTRODUCTION

Asthmatic patients' most important complaint is difficulty in breathing. In *Ayurveda* under, '*Swasa Roga'* obstructed passage of air is seen to be caused by the abnormal movement of *Vata* either on its own (where dry and astringent qualities cause the constriction and contraction of the smooth muscles) or in conjunction with an obstruction caused by excess *Kapha Dosha*, whose nature is to obstruct the tract. Basically, it is the presence of *Vata,* which dries out the accumulated mucus causing it to become thick and sticky. Symptoms of Bronchial Asthma are compared with those of "*Tamaka Shwasa "*, which is basically disorder of *Pranavaha Srotas*. *Shwasa* word indicates both physiological and pathological state of respiration. *Tamaka Shwasa* is one of the five types of disease *Shwasa. Tamaka Shwasa* is a disease mainly of *Pranavaha Srotas*[1]. The signs, symptoms, and etiopathogenesis of Bronchial Asthma explained in modern diagnosis have a lot of similarities with the disease entity *Tamaka Shwasa*. Both *Ayurveda* and modern medical Science agree regarding the *Nidana* of the disease as host factors (*Ninja Hetus – Doshadushti* and *Ama*) and Environmental factors (*Agantuja Hetus – Raja, Dhuma, Pragvata*, etc). It can be easily correlated with the allergic condition. *Nidana Parivarjanam* hence plays a key role in the management strategy in both sciences[2].

The prevalence of Bronchial Asthma has increased continuously since the 1970s, and now affects an estimated 4 to 7% of the people worldwide. it has multi factor causation. For many people with asthma, symptoms only occur when an acute 'attack' is triggered by an allergen such as pollen or dust mite. Asthma is the most common chronic disease of childhood, and yet many parents know little about it. In children aged 5 to 14 years, the rate of death from asthma almost doubled between 1980 and 1993. Among children aged 0 to 4 years in 1993, blacks were six times more likely to die from asthma than whites3.

Aims and objectives

Clinical study of the efficacy of *Yogas* i.e., *Kantakari Avaleha* (KA) and *Vasa Avaleha* (VA) in the management of *Tamaka Shwasa* with special reference to Bronchial Asthma.

Materials and Methods- Patients attending the OPD of *Kayachikitsa* Dac Jalandhar, having the complaint of *Tamaka Shwasa* like Paroxysm of breathlessness, Cough, Awaking in night etc

Selection of patients: -

Inclusion criteria: Age group between 14 and 50 years. Classical symptoms of *Tamaka Shwasa* with emphasis on symptoms like wheezing, shortness of breath, tightness in chest, and cough.

Exclusion Criteria:

- Severe cases of Asthma with complications like suspected infection, large airway lesions, heart diseases, etc.
- Cardiac complaints, other chronic debilitating diseases like Tuberculosis, Acquired Immune Deficiency Syndrome etc, other systemic and endocrine complaints associated with any degree of Asthma.

Diagnosis Criteria: It had been based on the specially prepared proforma, including all clinical signs and symptoms of the disease, in which detailed history had been taken.

Preparation of the Drugs: *Kantakari Avaleha* as described in *Sharanghara Madhyama Khand (8/5-9) {4}* was selected. The list of the herbs is as mentioned in Table 1. In another group, *Vasaavaleha*[5], as mentioned in *Bhaishajya Ratnavali* in *Kasa Roga Chikitsa* (16/179-181) was selected. The ingredients are enlisted in Table 2 in equal quantity for preparation of *Avaleha*.

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Table 1: Contents of *Kantakari Avaleha*

Drug	Latin name	Quantity
Kantkari	*Solanum Xanthocarpum*	*4.8 kg Kantkari added in 12.28 litre water and reduced to 3.072 l*
Guduchi	*Tinospora Cordifolia*	*48 g*
Chavya	*Piper Cubeba*	*-do-*
Chitraka	*Plumbago Zeylanica*	*-do-*
Musta	*Cyperus Rotundus*	*-do-*
Karkatshringi	*Pistacia Integerrima*	*-do-*
Trikatu Churna	*Pepper, Longer Pepper And Ginger*	*-do-*
Dhanvayasa	*Alhagi Pseudalghi*	*-do-*
Bharangi	*Clerodendron Serratum*	*-do-*
Rasna	*Pluchea Lanceolata*	*-do-*
Shati	*Hedychium Spicatum*	*-do-*
Sugar	-	*96.8 g*
Ghee		*384 g*
Sesame Oil	-	*-do-*
Vamshalochana	-	*48 g*
Long Pepper	-	*-do-*

Table 2: Contents of *Vasa Avaleha*

Composition	Botanical name	Dose
Vasa	Adhatoda Vasica	1(64 tola)
Sharkara	Sugar Candy	½ (32 tola)
Go ghrita	Clarified Butter	1/8 (8 tola)
Pippali	Piper Longum	-do-
Madhu	Honey	½ (32 tola)

Though both the drugs are of known efficacy, the patient's age group due to their bad palatability did not accept the forms of the medicines, *Kwatha*, etc. Taking the aspect of palatability and acceptability into effective consideration, the medicines were planned to be administered in *Avaleha* form. To make the *Avaleha* form of above-mentioned *Kashaya Siddhantas* told by *Sharangdhara* had been followed.

Posology: The dose is shown in Table 3.

Table 3: Dose and duration of trial drugs

Group	Dose	*Anupana*	Duration	Follow up
Group A	6GM	Lukewarm water	6 Weeks	1 month
Group B	6GM	Lukewarm water	6 weeks	1 month

Criteria of Assessment

1. Clinical features of *Tamaka Shwasa* w.s.r Bronchial Asthma
2. Improvement in frequency, intensity, and duration of symptoms had been considered.
3. Hematological investigations.
4. Absolute eosinophil count.

Effect of Therapy: - The clinical efficacy of the drug was analyzed statistically on all the symptoms mentioned in the assessment criteria. Initially, the variation and significance of effect seen within the 18 patients were calculated by paired *t test*. The difference of individual score SD was calculated with Standard Error in Mean (SEM). These data are shown as Mean ± SEM. Then, to more specifically quantify the percentage of improvement in each patient, this was also calculated using the formula (BT – AT) × 100/BT[6].

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Table 4: Effect of therapy is evaluated as:-

Improvement	Percentage
No improvement	0-25%
Mild improvement	>25-50%
Moderate improvement	>50-75%
Markedly improvement	>75-<100%
Complete remission	100%

Observations and Results: -

Table 5: General observations

Observations	Results(max.%)
Age	57.69%
Gender (male)	73.03
High school (paternal education)	46.1
-do-(maternal education)	26.9
Chronicity (0-3 Years)	65.5
Frequency (weekly)	34.6
Intensity (night and midnight)	53.8
Morning	50
Family history (+ve)	19.2
Nidana (Sheeta & Ruksha Ahara)	80.8
Shleshmala Ahara	57.7
Visham Asana (dietary habits)	42.3
Madhura Rasa (dominant Rasa in *Ahara*)	61.5
Vata-Pitta Prakriti (*Prakriti)*	42.31
Kapha-Vata Prakriti (Prakriti)	38.6
Agni (Mandagni)	65.38

Table 6: Effect of therapy on cardinal features in *Tamaka Shwasa* (b. asthma) in group - A

Symptoms	n	mean BT	mean AT	%	SD	SE	t	P
Shwasakastata	11	3.1	0.36	88.24	0.77	0.24	11.5	<0.001
Shwasa Vega	-do-	2.9	0.37	87.5	1.29	0.39	6.53	<0.001
Vega Tivrata	-do-	1.8	.27	85	0.82	0.25	6.25	<0.001
Vega Avadhi	-do-	2.6	.18	92.8	0.81	0.24	9.67	<0.001
Asinolabhate Saukhyam	07	1.8	.000	100	0.69	0.26	7.12	<0.001
Kasa	11	3.09	0.9	70.5	0.87	0.26	8.28	<0.05
Kaphanishthivan	03	1.6	0.00	100	0.57	0.33	5	<0.001
Wheezing	08	2.38	0.25	89.47	0.83	0.3	7.2	<0.001
Pihasa	11	2.78	0.78	73.3	0.63	0.19	10.4	<0.001
Urashool	06	1.67	00	100	0.4	0.17	7	<0.001
Shirograha	05	1.6	00	100	0.89	0.4	4	<0.05
Kanthodhvansana	04	1.7	00	100	0.96	0.48	3.6	<0.05
Nidra Labho	11	1.8	0.18	90	0.5	0.15	10.7	<0.001
Abhi Avarana Shakti	10	2.5	0.6	76	0.73	0.23	8.1	<0.001
Jarana Shakti	09	1.6	0.22	86.67	0.73	0.24	5.9	<0.001
Aruchi	08	1.13	00	100	0.7	0.5	3	<0.001

Table 7: Effect of therapy on hematological parameters in 18 patients of *Tamaka Shwasa* (b. asthma) in group- A

Haematological Parameters	n	mean BT	mean AT	%	SD	SE	t	P
Haemoglobin (Gm%)	11	10.87	10.70	1.5	0.5	0.15	10.76	<0.1
Tlc(/Cmm)	11	5975.84	7166.24	-19.92	2721.36	820.52	-1.45	<0.1

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Neutrophil	11	49.56	56.9	-14.86	11.10	3.34	-2.19	<0.1
Lymphocyte	11	43.54	34.9	19.83	12.26	3.6	2.34	<0.01
Eosinophil	11	4.64	5.27	-13.72	3.85	1.1	-0.55	<0.1
Monocytes	11	2.72	2.9	-6.67	0.75	0.2	-0.8	<0.1
ESR	11	17.81	9.27	47.95	10.62	3.2	2.67	<0.1
AEC	11	422.72	531.8	-25	504.39	152	-0.71	<0.1
Peak expiratory flow rate	2	214	185	15	15.55	11	2.63	<0.1

Table 8: Effect of therapy on cardinal features in *Tamaka Shwasa* w.s.r. to bronchial asthma in 18 patients of group B

Symptoms	n	Mean BT	Mean AT	%	SD	SE	t	P
Shwasakastata	7	2.71	0.14	88.24	0.77	0.24	11.5	<0.001
Shwasa Vega	7	2.29	0.29	87.5	1.29	0.39	6.53	<0.001
Vega Tivrata	7	2.0	00	85	0.82	0.25	6.25	<0.001
Vega Avadhi	7	2.14	.14	92.8	0.81	0.24	9.67	<0.001
Asinolabhate Saukhyam	06	1.8	.17	100	0.69	0.26	7.12	<0.001
Kasa	7	2.14	0.43	70.5	0.87	0.26	8.28	<0.05
Kaphanishthivan	05	1.6	0.00	100	0.57	0.33	5	<0.001
Wheezing	07	2.38	0.00	89.47	0.83	0.3	7.2	<0.001
Pihasa	07	2.29	0.78	73.3	0.63	0.19	10.4	<0.001
Urashool	06	2.26	00	100	0.4	0.17	7	<0.001
Shirograha	03	1.1	00	100	0.89	0.4	4	<0.05
Kanthodhvansana	05	1.2	00	100	0.96	0.48	3.6	<0.05
Nidra Labho	07	1.7	0.18	90	0.5	0.15	10.7	<0.001
Abhi Avarana Shakti	07	2.1	0.6	76	0.73	0.23	8.1	<0.001
Jarana Shakti	06	1.5	0.22	86.67	0.73	0.24	5.9	<0.001
Aruchi	05	1.6	00	100	0.7	0.5	3	<0.001

Table 9: Effect of therapy on Haematological parameters in 18 patients of *Tamaka Shwasa* (b. asthma) in group B

Haematological parameters	n	mean BT	mean AT	%	SD	SE	t	P
Haemoglobin (Gm%)	7	11.2	11.1	1.39	0.5	0.19	0.79	<0.1
Tlc (/Cmm)	7	8230.19	6973.4	15.27	2631.97	994.7	1.26	<0.1
Neutrophil	7	50.9	48.28	5.05	7.9	3.02	0.85	<0.1
Lymphocyte	7	40.3	43.57	-8.15	6.6	2.52	-1.30	<0.1
Eosinophil	7	6.2	5.43	13.6	4.3	1.62	0.52	<0.1
Monocytes	7	2.5	2.86	-11.11	0.7	0.2	-1	<0.1
ESR	7	12.57	17.43	-38.63	19.8	7.5	-0.65	<0.1
AEC	7	628.57	457.14	27.2	499	188.6	0.9	<0.1
Peak expiratory flow rate	3	200.67	177.67	5.54	18.7	7.09	1.3	<0.1*insignificant<0.1

Effect on *Roga Bala,* As the sample was small in both the groups, percentage-wise data are more reliable than the statistical data. In both the groups, symptoms related to *Shwasakashtata* were reduced but were statistically more highly significant in VA than KA, although trial drug decreases the *Vega Tivrata* and *Vega Avadhi*, between the treatment not whenever attacks come and not in emergency conditions. So, the trial drug plays an effective role. But, during the treatment, two patients reported an increase in the complaints with emergency modern medicine in control group VA. In *Kasa* and its associated symptoms, VA showed slightly better results than KA. Actually, *Kasa, Kaphanisthvan, Urahashool, Shirograha*, and symptoms are interrelated and cannot be assessed separately, but these all four symptoms make a complex feature which shows the different picture of *Tamaka Shwasa*, and symptoms of

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Shwasakashtata is also related with this. In *Kapha nishthivan*, both the groups showed significant results. In *Parshva Shula* and *Shirograha*, KA showed better results, but wheezing was decreased in VA, which may be due to decreased *Kaphanisthvan* and the mucous inside. In Peak expiratory flow rate KA showed better results. Effect on *Agni Bala*:- As far as *Abhyavaharana Shakti* is considered, In the group of KA, *Abhyavarana Shakti* was improved by 76%, which was statistically highly significant. Similarly, as far as *Jarnashakti* is considered, In the group KA, *Jarana Shakti* was improved by 86.67%, which was statistically highly significant. By the treatment of KA, all the parameters of *Agni Bala* showed improvement except *Ruchi*, which may be due to the ingredients of KA containing *Pippali, Shunthi, Maricha, Dhanyaka*, and *Guduchi*, which have more specific action on *Agni*. Effect on *Chetasa Bala*:- As far as *Chetasa bala* is considered, it is very much related to the counselling of the patients during the treatment. *Nidra Labho-yathakalam* may be due to release an attack of asthma in both the groups. Effect on other haematocrit values:- As far as Hematocrit values are considered , it is observed that in the KA Group, there was statistically no such significant changes observed in hematocrit values. what we note, was only that lymphocyte count got reduced by 19.23%, Hbgm % was improved by 1.51%, eosinophil count was reduced by 24.19%, and Erythrocyte sedimentation rate was reduced by 47.95%. Effect on absolute eosinophil count: - In both the groups, there were no statistically significant changes in hematocrit values in comparison with VA (27.27%). When comparison was done between two groups, it was observed that KA showed better results to decrease absolute eosinophil count (AEC) (39.69%) as compared to the other one. Overall effect of therapy:- When overall effect of therapy is observed, it is seen that In KA group, the highest number of patients (63.6%) got markedly improvement, 18.18% was observed with moderate improvement, and 18.18% of patients were observed with complete remission. In the VA group, the highest number of patients (71.4%) was markedly improved and 28.5% were observed with complete remission.

DISCUSSION

Since the *Tamaka Shwasa* is a *Vata -Kapha*-dominated disease, its incidence should be witnessed more either during the *Balyavastha*, which is the normal time of *Kapha* dominance, or the *Vridhavastha*, which is the normal time of *Vata* dominance[6]. This increased risk remained in males aged between 14 to 30 years, who were 1.3 times more likely to die from asthma than girls in that age group. After 30 years, the risk seems to even out between girls and boys[7]. In the present study, the maximum number of patients (57.69%) were in the age group of 14 to 30 years, followed by 42.31% in >30 to 50 years age group. Although in all the classical literature, generally we do not find a mention of the relation between *Tamaka Shwasa* and age. Similarly, as far as gender is considered, Maximum number of patients (73.08%) affected were male. No relation between the gender and *Tamaka Shwasa* has been established by the ancient writers. Similarly, during the modern era also, no such relation has been established. Male to female ratio was 2 : 1. Male children tend to suffer more, since they have smaller air ways for a given lung size, which is independently inherited in addition to the fact that boys have a higher incidence of respiratory infections during childhood[8]. Past History of *Peenasa* that has occurred just because of the chronic *Pratishyaya* further causes the *Khavaigunya* in *Pranavaha Srotas*. Role of hereditary factor in Asthma has been elicited by various studies recently. Absence of the Nrf2 gene has been found to increase the number of inflammatory cells within the airways, causing the airway lining to swell, which induces asthma in mice. Interestingly, in the present study, except for a minor percentage of 19.23%, majority of the patients had a positive family history, either from the maternal or paternal side[9]. Besides them, the majority of the patients that were evaluated were secondary students. This discussion may also be taken as a fulfilment of the modern concepts of data presentation in the biostatics in medicine. When a Prakriti-wise analysis of the patients was conducted, it revealed predominance of *Vata-Pitta Prakriti* scoring up to 42.31%. *KaphaVata Prakriti* was 38.46%. Besides them Majority of the students were showing dominance in *Rajo Guna*, i.e.,

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42.31%. *Proper Prakriti* analysis is difficult in children because of "*Sarva Dhatu Asampoornata*[10]. Still, an attempt has been made to analyze the Prakriti on the basis of current behaviour, physical features, and other physical characteristics. Moving towards *Nidana*, A large majority of patients in the present study (80.77%) were consuming refrigerated food, which are *Sheeta* and *Ruksha*, regularly. 57.69% of patients were using *Shleshmala Ahara*. Chocolates, *Takra*, and *Dadhi* were consumed by 30.77% on a regular basis. 26.92% were taking fruits regularly. *Sheeta, Vidhahi*, and *Vishthambhi Aahara*. *Abhishayandi Aahara* can create the *Sort Orodha* and vitiate the normal path of *Vata*. It is having *Guru* Property which is heavy for digestion and hampers the function of *Agni*. All other *Aharaja Nidana* mainly act as *Utpadaka* as well as *Preraka Hetu*. Among most commonly seen *Viharaja Nidanas, Sheeta Vata* leads in majority (80.77%). Exposure to dust was seen in 30.77% patients very regularly, and 19.23% were exposed to *Dhuma. Divaswapna* was regularly seen in 61.54% of patients. *Sheeta sthana* caused *Shwasa Vega* in 73.08% patients. These factors act as predisposing factors. *Raja* and *Dhuma* contain a number of allergens which adds to chronic airway inflammation in airways. *Nidana* is highly important in *Swasa Roga*. Primary prevention strategy in Asthma focuses on avoidance of etiological factors. Among the classical *Nidana* listed and also on the basis of attributes of commonly used food articles, a list of 6 *Ahara Dravyas* was considered in the present study for evaluation. Allergens of various types and chemical nature may act as exciting causes and produce asthma labelled as allergic asthma. The most important in this group are foods, inhalants, bacteria, emotions, and immunology. Other factors like fatigue, exhaustion, change of climate, dietetic indiscretions and exercise, weekend asthma, asthma occurring at night due to low output of adrenaline, etc., are well recognized and may play a part in the causation of disease[8]. Dominancy of *Rasa* in diet when observed, revealed surprising results that the maximum patients, i.e., 61.54%, were taking *Madhura Rasa Pradhana Aahara*. The observation in the present study reveals that 42.31% of the patients were of *Vishamashana* habit, with good variation depending on the liking of food and variation in appetite. Most of the patients were having affinity to some specific food article or a specific taste, and the quantity of food intake in children generally depends on their likes and dislikes. In this study, patients were strictly advised to avoid the probable causative factors of the disease and causes for *Agnimandya*. This restricts almost *Pathyacharana* and *Apathya Varjana*. The role of other dietary substances including the yellow dye tartrazine, benzoate, and monosodium glutamate in exacerbating asthma is probably minimal; confirmation of their relevance requires double-blind challenge before making specific dietary restrictions[10]. *Agni* wise Present study revealed that 65.38% of patients had *Mandagni* and 23.08% had *Vishamagni. Ama* plays a key role in the *Samprapti* of *Tamaka Shwasa*. The status of *Agni* has to be invariably assessed in all diseases for the understanding of the etiopathology as well as its management. *Jarana* Sakti when taken into consideration, it was observed that 80.8% of the patients had *Madhyama Jarana Shakti* and remaining 11.5% patients possessed *Avara Jarana Shakti*. Due to the dominance of *Manda* and *Vishama Agni, Abhyavaharana Shakti* was found to be less in all the patients. When Seasonal wise study was done, it was found that Rainy season was the triggering factor in aggravation of the disease *Tamaka shwasa* and was observed in 53.85% of patients; Asthma is highly influenced by seasonal variation. While discussing the time of aggravation of *Tamaka Shwasa*, the Ayurvedic scientists have pointed out that the *Shwasa Roga* and particularly the *Tamaka Shwasa* get aggravated during the rainy season and winter season. Adverse weather conditions, such as cold temperatures, high humidity, and episodes of acute pollution brought on by weather conditions that promote the concentration of atmospheric pollutant and antigen, have been associated with Asthma exacerbations. Chronicity wise distribution of the patients was done into three groups as follows: 14 to 25 years was found in maximum patients (65.54%), >25 to 40 years was found in 26.92%, and >40 to 50 years was found in 7.69%. The diseases were of a chronic duration and their curability was never expected. So, *Krichhra-Sadhyata* or *Yapyata*

doi: 10.46607/iamj08p5022021 | IAMJ Dec 2020 - Jan 2021 | www.iamj.in

could have been expected[11]. Similarly, when Intensity of attack was taken into consideration, Maximum patients had increased intensity of attack in night and midnight (53.85%); in 50% of the patients, it was found in the morning and after physical exercise. Increasing *Shwasa* is observed. Frequency of attack was found daily in 26.92%, weekly in 34.62%, fortnightly in 30.77%, and monthly in 19.23%. Area wise distribution of patients revealed that Majority of patients (84.62%) were from urban areas and 15.38% were residing in rural areas. Children in populations that migrate to urban from rural areas begin to experience a much higher prevalence of asthma when followed over a period than similar children who remain in the rural areas. The urbanized environment increases exposure to new allergens[12]. *Srotodusti* wise, it was interesting to observe the symptoms told in *Prana Vaha* that *Sroto Dushti* were present in a very high number of patients as such. *Alpalpa Shwasa* and *Sashabda Shwasa* were symptoms found in all the patients showing 76.92% incidence. *Ati Badha* was found in 11.54%, *Abhikshna Shwasa* was seen in 46.15% of patients, *Sashabda Shwasa* was seen in 76.92%, and *Sashula Shwasa* was seen in 76.92% of the patients who participated in the present clinical trial. Chief complaint wise, of the 36 patients of *Tamaka Shwasa* in the present clinical trial, all (100%) had *Shwasa Krichhtata* or shortness of breath and *Kasa* as chief complaints. *Peenasa* was reported in 76.92%, *Ruksha Kasam* in 76.92%, *Sakapha Shwasa* in 19.23%, and *Parshwa Shula* was seen in 34.62%. *Shwasakashtata* is a *Pratyatma Lakshana* of *Shwasa* which is commonly associated with *Kasa* too, as it occurs mainly due to *Srotorodha* produced by *Kapha* in the path of *Vata*. So as to get the relief when patient tries to expel out the obstruction, that is why more and more cough reflex is produced; in some patients (*Kapha Pradhana*), it is easily expelled out, while in others (*Vata Pradhana*), patient has to make more efforts as in *Vatic* due to *Sankoch* in *Pranavaha Sroto Nadi*, usually without *Kasa*, or *Kasa* will be very troublesome and there will be no relief even after expulsion of sputum and due to excessive coughing, respiratory muscles get exhausted, so *Parshva Shula* is observed. *Pratishyaya* is a very common *Nidana*. In associated symptoms of *Tamaka Shwasa* during the attack, 50% found relief after *Kasten sleshma nirharam and Vamana. Kshavathu* was seen at 46.15%, 34.62% was figured in the prevalence of symptoms of *Shiro Greeva Parigra*. *Ushnopachara* was reported as a relieving factor in as many as 42.31% of patients. And, 57.69% patients reported that they get relief in sitting posture (*Ashino labhate Saukhyam*). *Anupasaya* with cold drinks which caused the vitiation of *Vata* and *Kapha* without *Sanchaya* due to extreme *Sheeta Guna*. Three patients were reported with touch of cold water as an *Anupshaya*. A large majority had cold drinks and refrigerated food as an aggravating factor, figuring up to 80.77%. *Sheeta Vata* (relatively less percentage due to less habit of early rising and that is why no morning breeze exposure) was reported in 80.77%, *Raja* in 30.77%, 19.23% was found reported *Dhuma* (relatively less than *Raja* as it include only outdoor pollution containing various allergens and indoor smoke is nowadays less as all the housewives are using gas in well-ventilated kitchen), *Meghambu* in 53.85%, *Dadhi* was *Anupshaya* in 30.77% of patients. 57.69% was found in *Shleshmala Ahara*, i.e., milk products and sweets. The drug BA consists of many ingredients which excellently balance each other in *Rasa-Panchaka* and enhance the *Vata Kapha Hara, Deepana, Pachana*, and *Vata Anulomana* properties, which are the main *Doshas* in pathogenesis. 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*. Furthermore, the *Sothaharatwa Karma* of most of the contents will neutralize the *Srotorodha* in *Pranavaha Srotas* due to *Sotha* created by *Sama Vata*. The main logics behind the actions are as follows: The *Dosha-Prashamana* effect (*Bharangi, Pippali, Sunthi, Maricha, Haridra, Kasmarda*) acts on the main *Doshas* which contribute to the *Samprapti*, viz. *Vata* and *Kapha* and *Guduchi* and *Dhanyaka Tridoshahara* properties are present[13]. *Deepana-Pachana Karma (Pippali, Maricha, Guduchi, Shunthi, Dhanyaka)* digest *Ama. Vata Anulomana* property (*Pippali, Sunthi*) maintains the normal flow of *Vata. Shwasa, Kasa, Shothahara Prabhava (Bharangi, Vasa,*

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Shunthi, Kasmarda, Pippali, Maricha, Dhanyaka) act on the symptoms. The pharmacological studies already reported on the individual drugs also favour its effect in disease bronchial asthma as given below: Antiallergic[14] - *Haridra, Bharangi, Guduchi*; anti-inflammatory-*Haridra, Guduchi, Maricha, Kasmarda, Pippali, Shunthi*; antispasmodic- *Vasa, Dhanyaka*; Antitussive-*Vasa, Shunthi*; bronchodilator-*Vasa, Pippali*; expectorant-*Vasa*; immunomodulator-*Pippali, Guduchi*. VA has *Madhura Rasa* dominancy along with *Tikta, Katu*, and *Kashaya Rasa. Sheet Veerya* and *Katu Vipaka* contribute to the pharmacodynamics of VA. Contemplation of the ancient classics reveals no such specific property of *Avaleha* regarding the pharmacokinetics, except its site of action starts from the mouth. *Avaleha* may work as *Rasayana* for the *Pranavaha Srotas* and also shows the *Kapha Vatahara* effect. Antispasmodic—*Vasa*; expectorant-*Vasa*; immunomodulator- *Pippali*; anti-tissue *Vasa*; bronchodilator-*Vasa, Pippali*-Anti-inflammatory.

CONCLUSION

Kantkari Avaleha and *Vasavaleha* both showed approximately equal effect on *Roga Bala*. Combination of *Kantakari Avaleha* is very good having all the properties required to break the *Samprapti* of *Tamaka Shwasa*; however, the results are statistically not so encouraging, which may be due to the use of same formulation in both types of patients (having *Vata Pradhana Samprapti* and having *Kapha Pradhana Samprapti*).

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Source of Support: Nil
Conflict of Interest: None Declared

How to cite this URL: Nishu Raina: Clinical Study Of Kantkari Avleha And Vasa Avleha In The Management Of Tamak Shwasa W.S.R To Bronchial Asthma. International Ayurvedic Medical Journal {online} 2021 {cited January, 2021} Available from:
http://www.iamj.in/posts/images/upload/2705_2713.pdf