World Journal of Pharmaceutical and Life Sciences
WJPLS
www.wjpls.org
SJIF Impact Factor: 6.129

CLINICAL EFFECT OF *VIRECHANA* AND BADARA CHURNA IN THE MANAGEMENT OF *TAMAKA SHWASA* (BRONCHIAL ASTHMA)

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Article Received on 30/09/2020 **Article Revised on 20/10/2020** **Article Accepted on 10/11/2020**

ABSTRACT
To evaluate comparative effi cacy of *Samshodhana* and *Samshamana Chikitsa*, the current study is planned in 24 patients of *Tamaka Shwasa*. Thirteen patients (Group A) were treated with *Samshodhana*, particularly with *Virechana Karma*. The patients of this group received *Abhyantara Snehana* with *Tila Taila* followed by *Bahya Snehana* with *Tila Taila* and *Saindhava Lavana*. After observations of proper signs of *Snehana; Virechana Karma* was performed with *Aragvadha Phala Majja*. *Samsarjana Krama* was followed for fi ve days. Subsequently all the patients were given the trial drug (powder of *Badara*). The patients of group B, were treated only with the powder of dried ripe fruits of *Badara*. In both groups, the dose of *Badara* powder was 5 g, twice a day, with luke warm water, for a period of 60 days. In group A, maximum number of patients (61.45 %) showed good response, while in group B, 45.45 % patients showed good response. No side effects were observed during the clinical trial. Based on the observations, it was concluded that, group A is more effective than group B.

KEYWORDS: *Aragvadha Phala Majja, Badara Phala Majja,* Bronchial Asthma, *Tamaka Shwasa.*

INTRODUCTION
Tamaka Shwasa is a type of *Shwasa Roga* (respiratory disease) affecting the *Pranavaha Srotas* and characterized by *Pratiloma Vayu* (prolonged expiration), *Ghurghuraka* (wheeze), *Ativa Tivra Vagam Ca Shwasam Pranaprapidakam* (dyspnoea of exceedingly deep velocity, which was immensely injurious to life) and so on *Tamaka Shwasa*, in Ayurvedic classics seems to be identical with the description of bronchial asthma in modern medicine. Bronchial asthma is a major global health problem, which can affect the population irrespective of age, sex, economical status, etc. At present, asthma is reported in 1.2 – 6.3% adults in most countries. About 300 million people worldwide suffering from asthma and the number has risen by around 50% in the last decade. There are only a few studies from India on epidemiology of asthma. Overall burden of asthma in India is estimated to be more than 15 million patients. Five percent of children under 11 years have asthma in India.

A number of drugs are available in modern system of medicine to counter this condition, but are known to develop various adverse drug reactions. Considering these reactions, the suffering population is searching certain traditional remedies for better relief that are comparatively safe in nature. Ayurveda can provide promising results in *Tamaka Shwasa* through a set of treatment modalities. *Shodhana* and *Shamana* are some of such modalities. Currently, an attempt has been made to evaluate comparative efficacy of *Shodhana* and *Shamana Chikitsa* in case of *Tamaka Shwasa*.

MATERIALS AND METHODS
Patients fulfilling the criteria of *Tamaka Shwasa* (Bronchial Asthma) were registered in the clinical study, irrespective of sex and religion from the OPD & IPD of JIAR hospital, Jammu.

Inclusion criteria
(1) Age: Patients between 17 to 70 years of age.
(2) Presence of features of *Tamaka Shwasa*.
(3) Patients not taking any other medicines for *Tamaka Shwasa*.

Exclusion criteria
Patients suffering from major disorders like hypertension, cardiac asthma, tropical pulmonary eosinophilia, acute and chronic bronchitis, bronchiectasis, spontaneous pneumothorax, complicated bronchial asthma, drug dependent cases and pregnant women were excluded from the study.

A detailed history and physical examination was done on the basis of the standard proforma, which included both Ayurvedic and modern methods of examination:

Agnibala, *Dehabala*, *Prakriti* were recorded. For selection of the patients the diagnosis was based on subjective criteria and objective criteria as follows:

A. **Subjective criteria**: Presence of symptoms of *Tamaka Shwasa*. The symptoms were based on textual references like *Pratiloma Vayu* (prolonged expiration), *Ghurghuraka* (wheeze), *Ativa Tivra Vegam Ca Shwasam Pranaprapidakam* (dyspnea of exceedingly deep velocity, which was immensely injurious to life), *Shlesmanyamucyamane Tu Bhrsam Bhavati Duhkhita* (as the phlegm does not come out, the patient became more restless), *Uddhvamsate Kantha* (choked throat), *Asino Labhate Saukhyam* (comfortable in orthopnea position), *Tasyaiva Ca Vimoksante Muhurtam Labhata Sukham* (patient found momentary relief after the expulsion of phlegm), *Shayanah Shwasapiditah* (patient had more dyspnea when lying down), *Ruksa Bhasana* (hoarseness of voice).

B. **Objective criteria:** As objective criteria, the following investigations were carried out –

(a) Blood: Total leucocytes count, differential leucocyte count, hemoglobin percentage, Erythrocyte Sedimentation Rate (ESR), (b) Stool: Routine microscopic examination of the stool., (c) Urine: Routine urine examination, (d) Radiological examination: X-ray of the chest, (e) Pulmonary Function Tests: (i) Breath Holding Time and (ii) Peak Expiratory Flow Rate.

Plan of study: Total 24 patients have been enrolled in the trial and were divided into two groups viz *Samshodhana* and *Samshamana* (Group A) and *Samshamana* (Group B).

(A) 13 Patients in group A, received *Samshodhana* therapy (*Virechana Karma*). *Snehana* (oleation therapy) with *Tila Taila* in increasing dose (1st day – 40 ml, 2nd day – 80 ml, 3rd day – 120 ml, 4th day – 160 ml and 5th day – 200 ml) was administered to produce the optimum *Snehana* effects. The duration of intake of *Snehapana* in all cases was five days. On the 5th day the features of proper oleation were observed. Along with internal oleation, external oleation of the patients was done with *Til Taila* added with *Saindhava Lavana* particularly over the chest and back was done.

Table 1: Effect of therapy on clinical features of *Tamaka Shwasa.*

	Group A (n=13)					Group B (n=11)				
	Mean	**SD**	**SE**	**t**	**p**	**Mean**	**SD**	**SE**	**t**	**p**
Prolonged expiration	1.76	2.06	0.57	03.10	<0.01	1.54	0.69	0.21	7.14	<0.001
Cough	1.09	0.49	0.14	06.78	<0.001	0.64	0.81	0.24	2.67	<0.02
Rhinitis	0.92	0.64	0.18	05.21	<0.001	0.64	0.50	0.14	4.26	<0.01
Wheeze	2.46	0.66	0.43	05.72	<0.001	1.55	0.69	0.21	7.45	<0.001
Dyspnoea	1.85	0.55	0.15	12.30	<0.001	1.88	0.87	0.26	4.54	<0.001
Restlessness	1.69	0.48	0.12	13.7	<0.001	1.45	0.69	0.21	6.90	<0.001
Choked throat	1.23	0.44	0.17	10.11	<0.001	1.00	0.77	0.23	4.35	<0.001

Table 2: Effect of therapy on objective features.

	Group A (n=13)					Group B (n=11)				
	Mean	**SD**	**SE**	**T**	**p**	**Mean**	**SD**	**SE**	**t**	**p**
BHT	17.615	8.231	2.282	7.719	<0.001	5.00	2.86	0.869	5.8139	<0.001
PEFR	78	28.03	7.77	10.038	<0.001	20.909	23.855	7.192	2.9069	<0.02
TLC	4077.9	3707.2	1028.2	3.96	<0.01	6272.72	3875.32	1168.4	5.3683	<0.001
ESR	13	5.49	1.52	8.55	<0.001	4.72	3.07	0.93	5.1010	<0.001

DISCUSSION

Comparative data revealed that the '*p*' value in almost all the features was highly significant, except *Pratiloma Vayu*, where the response was moderately significant in group A. On the other hand the response in group B was highly significant in maximum subjective features. The response to *Pinasa* was moderately significant, whereas that to *Kasa* and *Ruksa Bhasana* was less significant in group B. From the data of the objective features, the '*p*' values were almost highly significant (*P*<0.001) in the maximum parameters. When the overall effect of therapy was considered, it was found that the response in group A was highly significant when compared to group B. Hence, it can be concluded that the *Shodhana* with '*Badara Churna*' is more effective. The results are encouraging and support the classical claim that *Badara* is effective in alleviating the symptoms of *Tamaka Shwasa* and can be used extensively in the treatment.

Probable mode of action of the drug

Charaka has advised *Samshodhana* in *Tamaka Svasa* & has given more emphasis on *Virechana Karma* to correct the dearranged *Doshas* (*Vata* and *Kapha*). In addition, ingredients that alleviate *Vata* and *Kapha* (*Kapha-Vataghnam*), *Ushna Virya* (hot in potency) and which cause a downward movement of *Vata* (*Vatanulomanam*) are useful as medicines (*Bhesaja*), *Pana* (drinks), and *Anna* (food) for a patient suffering from asthma. A number of drugs are described for *Virechana Karma* in classical texts. Out of these, for the present study *Aragvadha* (*Cassia fistula* Linn) was selected. *Charaka* has considered it as the best *Mridu Virechana Dravya*

and *Badara* (*Zizyphus jujuba* Lam) is considered as useful in *Shwasa* by *Sushruta* Govinda Das *Aragvadha* is *Madhura, Tikta Rasa; Guru, Mridu, Snigdha Guna; Shita Virya* and *Madhura Vipaka*. Hence, the drug is useful as *Vata-Pitta Shamaka.* Due to *Madhura, Snigdha Guna* it helps in *Vatashamana* as well as *Kaphanihsarana* and due to *Sransana* property it excretes *Kosthagata Kapha* and *Pitta*. In *Ashtanga Hridaya, Aragvadha* is described in the *Kaphaghna Gana* and in *Sushruta Samhita, Aragvadha* has been described as the *Adhobhagadosahara Dravya.* As per *Charaka Samhita, Aragvadha* is the best *Mriduvirecana* drug. Therefore, it helps in *Kapha Nirharana* along with *Vatanulomana*. Thus, the drug helps in *Dosha-Dushya Vighatana* in the disease *Tamaka Shwasa*. According to different Ayurvedic textual references, *Badara Phala Majja* possesses *Madhura, Amla, Kasaya Rasa; Laghu, Snigdha Guna; Shita Virya* and *Madhura Vipaka*. As per *Charaka*, *Badara* has been described in *Virechanopaga Mahakasaya* as *Virechana Dravya* and also described in *Amla Skandha*. As per *Sushruta*, *Badara* has been described in *Vata Samshamana Varga.* Hence, the drug fulfils the criteria of the line of treatment described in *Charaka Samhita, Chikitsasthana*.

CONCLUSION

Tamaka Shwasa is a type of *Shwasa Roga* affecting the *Pranavaha Srotas*, which is significantly distressing and a fatal disorder of the present-day-life. *Tamaka Shwasa* has been described in various Ayurvedic classics and seems to be identical to bronchial asthma. On comparative analysis of the data, it appears that *Shodhana Chikitsa* is more effective than *Shamana Chikitsa* in *Tamaka Shwasa*. On the basis of the findings it can be concluded that *Virechana Karma*, a purification therapy is the potential procedure for the treatment of *Tamaka Shwasa*. *Badara Phala Majja Churna* is found to be an effective drug for *Tamaka Shwasa*. It has also been observed that the drug is found to be more effective in patients after purification. No side effects have been observed during the present study. Further studies in this direction are essential in a good number of cases, for a longer period, to establish probable mechanism of action of the drug.

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