

UPASHAYATMAKA STUDY OF SAUVARCHALADI CHURNA AND SHWASAROGAHARA DHOOMA IN THE MANAGEMENT OF TAMAKA SHWASA VIS- A- VIS BRONCHIAL ASTHMA W.S.R. TO AMA DOSHA.

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ABSTRACT

WHO report says that incidences of Asthma are considerably increasing every year and patients are becoming more sensitive by increased hyper responsiveness of air passage. Use of Dhoompana (medicinal smoke) along with Sauvarchaladi Churna gives a best management in asthma care which is less harmful, cost effective and can be used for long time. Amadoshahara, *Deepana- Paachana* properties of 'Sauvarchaladi Churna' are beneficial to remove *Saama and Malabhoota Kapha* from Srotasa & Dhoompana also enhances the properties of drug. So 'Upashayatamaka (clinical)' study of 'Sauvarchaladi Churna' and 'Shwasarogahara Dhooma' may be useful, having a great role in improvement in Quality of Life by reducing the recurrent attacks of breathlessness and wheezing.

KEYWORDS: Hyper responsiveness, Dhoompana, *Saama and Malabhoota Kapha*.

INTRODUCTION

On the basis of clinical manifestations, 'Tamaka shwasa' shows a great similarity with 'Bronchial Asthma'.

Acharya Charaka while emphasizing the importance of the '*Shwasa Roga*' has said that there are several life threatening diseases, but no one is as fatal as '*Shwasa*' so as to rapidly claim a person's life.^[1]

Asthma is a chronic disease characterized by recurrent attack of breathlessness and wheezing which vary in severity and frequency from person to person. Symptoms may occur several times in a day or week in affected individuals and some people become worse during physical activity or night. Asthma is manifested physiologically by a widespread narrowing of the passages and clinically by paroxysm of dyspnea, cough and wheezing.^[2]

The vitiated '*Pranvayu*' combines with deranged '*Kapha dosha*' in the lungs and respiratory tract, causing obstruction in the '*Pranavaha srotasa*', this resulting gasping and labored breathing. This condition is known as '*Shwas Roga*'. Among the five types of *Shwasa* '*Tamaka shwasa*' is '*Yapya*' (controllable and difficult to cure).^[3]

In modern Asthma has divide into two types-extrinsic or allergic asthma due to allergens and intrinsic or non-allergic asthma due to exercise, stress, drugs, inhaled pollutants etc.

The GINA workshop report 2005 says, "The rate of asthma increases as communities adopt western lifestyle and become urbanized." In today's stressful modern urbanized living, incidence of asthma is considerable increasing. The rapid industrialization, excessive crowding, increasing pollution are some of the factors responsible for this increase in incidence of bronchial asthma.

According to WHO, the fundamental causes of asthma are not completely understood while the causes of *Shwasa Roga* describes in details in *Ayurvedic* literature such as- *Brahatrayi*, *Laghutrayi* etc.^[4]

So in present scenario, there is a great necessity to prove or determine the logistic and reasonability of *nidans* written in the *Ayurvedic* literature with the modern approach. *Ama* is the basic etipathological factor in the pathogenesis of allergic disorders and *Tamaka shwasa*.^[5] All of the *nidanans* of the *Shwasa Roga* are related directly or indirectly to the formation of the *Ama*. *Ama dosha* plays a great role in the *Samprapti* of *Tamaka shwasa*. So it is very essential to prove the role of *Ama Dosha* in the '*Samprapti Chakra*' of the extrinsic and intrinsic type of asthma.

Ayurvedic medicines which have 'Amadoshahar' properties can be used for long time. They are cost-effective, having efficacy and no side effects. So 'UpashayaTamaka (clinical)' study of 'Amadoshhara Yogas' may be useful having a great role in the management and cure of Bronchial Asthma.

AIMS AND OBJECTIVES

1. To evaluate the efficacy of trial drug on various parameters of *Tamaka shwasa*.
2. To improve the quality of life of asthma patient by restoration of normal or best possible long-term airway function.
3. To reduce the risk of the severe attacks.

With an aim to provide an update of *Ayurvedic* compounds (coded as *Sauvarchaladi Churna* and *Shwasarogahara Dhooma*) in the management of *Tamaka shwasa*, the present study was undertaken.

MATERIAL AND METHODS

Selection of cases

◆ **Source** - Patients having *Tamaka shwasa* (Bronchial Asthma) and willing to provide written, informed consent will be randomly selected from the NIA hospitals and other hospitals situated in Jaipur.

◆ **Age group** – Patients between 16 to 70 years were considered for the study.

◆ **Number of cases** – Total 69 patients were registered for *Upashayatmaka* study out of which 9 patients discontinued the treatment.

◆ **Grouping of patients** – Selected patients for *Upashayatmaka* study were randomly divided into following two groups with 30 patients in each group keeping in mind all the groups have patients of *Tamaka shwasa* with different level of *Ama dosha*.

Group I – *Shwasrogahar Dhooma*.

Group II – *Shwasrogahar Dhooma & Sauvarchaladi Churna*.

DIAGNOSTIC CRITERIA

A. Inclusion criteria

1. The patients with all the general features of *Tamaka shwasa*.^[6,7]
2. The patients with all the cardinal symptoms of Bronchial Asthma.
3. Uncomplicated cases of Bronchial Asthma.
4. Chronicity less than 10 years.

5. History of at least 4 episodes in last one year.

B. Exclusion Criteria

1. Age group-patient age below 16 years and above 70 years.
2. Severely malnourished and debilitated patients.
3. Status Asthmaticus.
4. Restrictive lung disease (neuronal & skeletal deformity disorders) and any anatomical defect in airway.

C. Assessment criteria

i. Subjective Parameters

- a. Standard scoring pattern for objective parameters such as Wheezing etc. were adopted wherever available. Scores will be given to the rest of the parameters such as *Agnibala*, *Dehabala* and *Chetasabala*.^[8] based on (cha. Ni. 8/36-37).

ii. Laboratory Parameters:

- a. Routine investigation of blood - TLC, DLC, ESR, Hb, TEC
- b. Radiological Test - X-Ray Chest
- c. Specific Test – Spirometry

(I) For follow up study of *Tamaka shwasa* total 100 score has been divided in following-
Rogabala, *Dehabala*, *Agnibala* and *Chetasabala* as –

Rogabala-70, *Agnibala*-15, *Dehabala*-07, *Chetasabala*-08

1) **ROGA BALA (70)** - This score has been further subdivided as following.

(A) Chief Symptoms (55).

- | | |
|---|----|
| i) <i>Swasakrichata</i> /Dyspnea (Breathlessness) | 04 |
| ii) Paroxysm of Dyspnea. | |
| a) Frequency of attacks | 04 |
| b) Intensity of attacks | 04 |
| c) Duration of attacks | 04 |
| d) Attacks due to <i>megha</i> , <i>ambu</i> , <i>sheet</i> , <i>pragvata</i> and <i>shleshmal ahara vihara</i> | 04 |
| iii) <i>Kasa</i> (Cough) | 04 |
| iv) <i>Kaphanishthivana</i> (Expectoration) | 04 |
| v) <i>Ruddho ghurghurkam</i> (Wheezing) | 04 |

vi) Nocturnal awakening	04
vii) Early morning awakening	04
viii) Chest tightness	04
ix) Presence of <i>Pranavahasrotodushti lakshna</i> ^[9]	04
x) P.E.F.R.	04
xi) Ronchi	04
 (B) Associated symptoms (15)	
i) <i>Peenasa</i>	03
ii) <i>Parshvashoola / Urahshoola</i>	03
iii) <i>Kanthoddhvansa</i>	03
iv) <i>Trit/Vishushkaasyata</i>	03
v) <i>Ushnabhinandati</i>	03
 2) AGNIBALA (15)	
i) <i>Jaranashakti</i>	04
ii) <i>Abhyavaharanashakti</i>	04
iii) <i>Ruchi Hi Aaharakale</i>	03
iv) <i>Vata Mutra Purisha Retasam Mukti</i>	04
 3) DEHABALA (07)	
i) <i>Balavridhhi evam Sharira Upachaya</i>	04
ii) <i>Swara Varna Yoga</i>	03
 4) SATVABALA (08)	
It has been further divided as (4 + 2 + 2):	
i) <i>Nidra Labhoyathakalam</i>	04
ii) <i>Sukhena - Cha - Pratibodhanam</i>	02
iii) <i>VaikarikaAma - Cha - Swapnanam Adarshanam and Mano Buddhi - Indriya Avyapatti</i>	02

Overall Assessment of the Therapy

Total Score obtained in *Rogabala*, *Dehabala*, *Chetasabala* and *Agnibala* assessed in terms of- No improvement - 00, Mild improvement - 0-25, Improved - 26-50, Markedly improvement - 51-75, Complete remission - 76-100

STUDY DRUG

Ingredients of *Sauvarchaladi Churna* are.^[10]

Sanskrit Name	Botanical Name	Part Used
<i>Sauvarchal lavana</i>	--	--
<i>Shunthi</i>	Zingiber officinale	Rhizome
<i>Bharangi</i>	Clerodendrum Serratum	Root
<i>Sharkara (Sita)</i>	Saccharum officinarum Linn.	<i>Swarasa</i>

Ingredients of *Swasarogahara Dhoompna* are.^[11]

Sanskrit Name	Botanical Name	Part Used
<i>Padmaka</i>	Prunus cerasoides	Bark
<i>Guggulu</i>	Commiphora mukul	Gum resin
<i>Aguru</i>	Aquilaria agallocha Roxb.	Heart wood
<i>Shallaki</i>	Boswellia serrata Roxb.	Gum resin
<i>Ghrita</i>	Butyrum departum	--

Doses

Sauvarchaladi Churna – Generally 5 gm. *churna*, twice a day (after breakfast and before meal) with *Anupana* of *Koshna jala* was administrated by oral route but dose of an *ayurvedic* drug varies patient to patient and depends upon *Dashvidha Pariksha*.

Shwasarogahara Dhooma – A varti or coarse powder (5gm.) was administrated in form of *dhooma* through cigarette or cigar or *hukka* twice daily in *vata-kapha Samutklesha kalas*^[12] (before sleeping and early morning) by oral and nasal route. Special precautions and appropriate method of administration of *Dhoompna* was educated to the patient under scholar's observation.

Trial Duration: 45 days with follow up every 15 days.

OBSERVATION AND RESULTS**Statistical analysis**

All the calculation was calculated through 'GraphPad InStat' Software.

- Wilcoxon signed rank test- Non parametric test for the case of two related samples or repeated measurement on a single test. It will be used for the assessment of improvement in symptom of group 'A' and 'B'.

Wilcoxon matched-pairs signed-ranks test for subjective Assessment.

W = Sum of all signed rank P= Two tailed 'p' value

Interpretation of 'p' value-

* >0.05-insignificant

* * <0.05-significant

* * * <0.01-very significant

* * * <0.001-highly (extremely) significant

Effect of Therapy on Rogi Bala

Symptoms	<i>Shwasarogahara Dhooma</i>			<i>Dhoompana+Sauvarchaladi Churna</i>		
	n	% relief	Significancy	n	% relief	Significancy
Frequency of attacks	30	38.454	0.002	30	59.399	<0.0001
Intensity of attacks	30	33.333	<0.0001	30	50.011	<0.0001
Duration of attacks	30	35.709	<0.0001	30	58.35	<0.0001
Attacks due to <i>megha, ambu</i> etc.	30	34.782	<0.0001	30	52.091	<0.0001
<i>Kasa</i> (Cough)	30	54.107	<0.0001	30	66.818	<0.0001
<i>Kaphanishthivana</i> (Expectoration)	30	43.509	<0.0001	30	64.562	<0.0001
<i>Ruddho ghurghurkam</i> (Wheezing)	30	41.87	<0.0001	30	51.733	<0.0001
Nocturnal awakening	30	35.553	0.0027	30	58.982	0.0003
Early morning awakening	30	37.493	<0.0017	30	57.894	<0.0001
Chest tightness	30	32.441	0.0204	30	48.56	0.0053
Presence of <i>Pranavahasrotodushiti lakshna</i>	30	39.7	<0.0001	30	54.389	<0.0001
P.E.F.R.	30	30.503	0.0016	30	43.068	<0.0001
Ronchi	30	41.377	0.0155	30	45.961	0.0004
<i>Peenasa</i>	30	35.418	0.0034	30	55.01	0.0001
<i>Parshvashoola / Urahshoola</i>	30	39.128	0.0137	30	42.844	0.0017
<i>Kanthoddhvansa</i>	30	32.144	0.0137	30	57.572	0.0008
<i>Trit/Vishushkaasyata</i>	30	36.001	0.0137	30	39.997	0.0098
<i>Ushnabhinandati</i>	30	39.991	0.0032	30	48.401	0.0027

EFFECT OF THERAPY ON AGNI BALA-

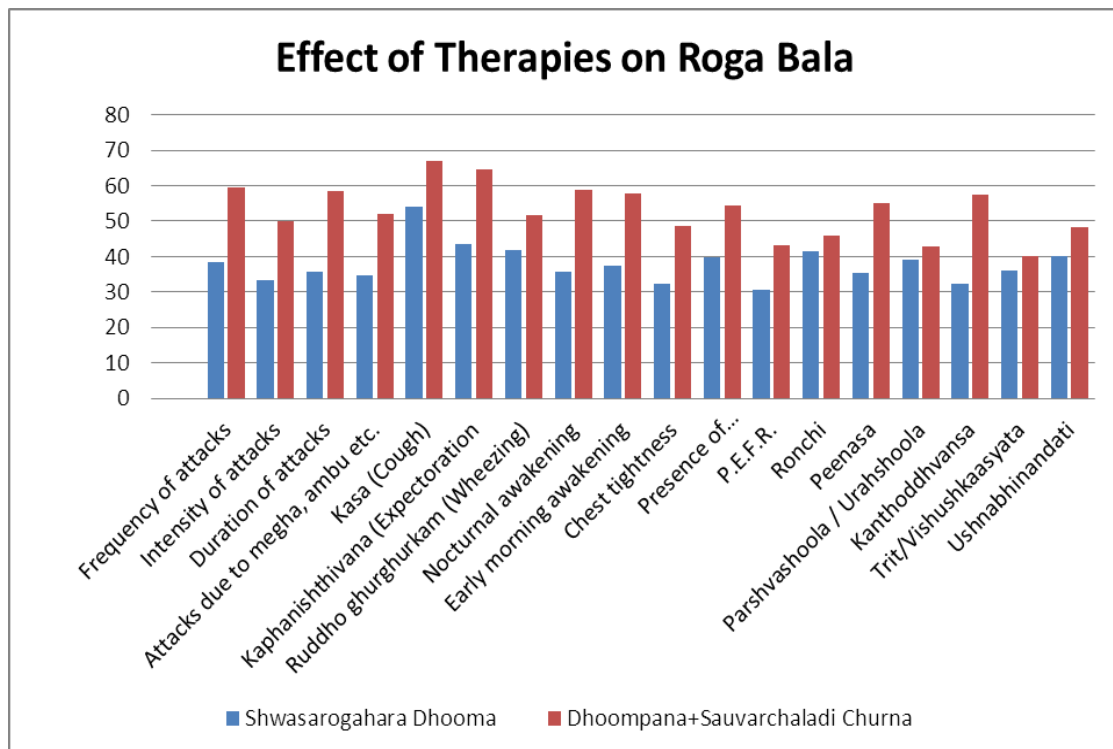
Symptoms	<i>Shwasarogahara Dhooma</i>			<i>Dhoompana+Sauvarchaladi Churna</i>		
	n	% relief	Significancy	n	% relief	Significancy
<i>Jaranashakti</i>	30	26.819	0.0017	30	60	<0.0001
<i>Abhyavaharanashakti</i>	30	27.277	0.0041	30	52.738	<0.0001
<i>Ruchi Hi Aaaharakale</i>	30	28.576	0.0833	30	54.545	0.0004
<i>Vata Mutra Purisha Retasam Mukti</i>	30	32.265	0.0448	30	49.901	0.0016

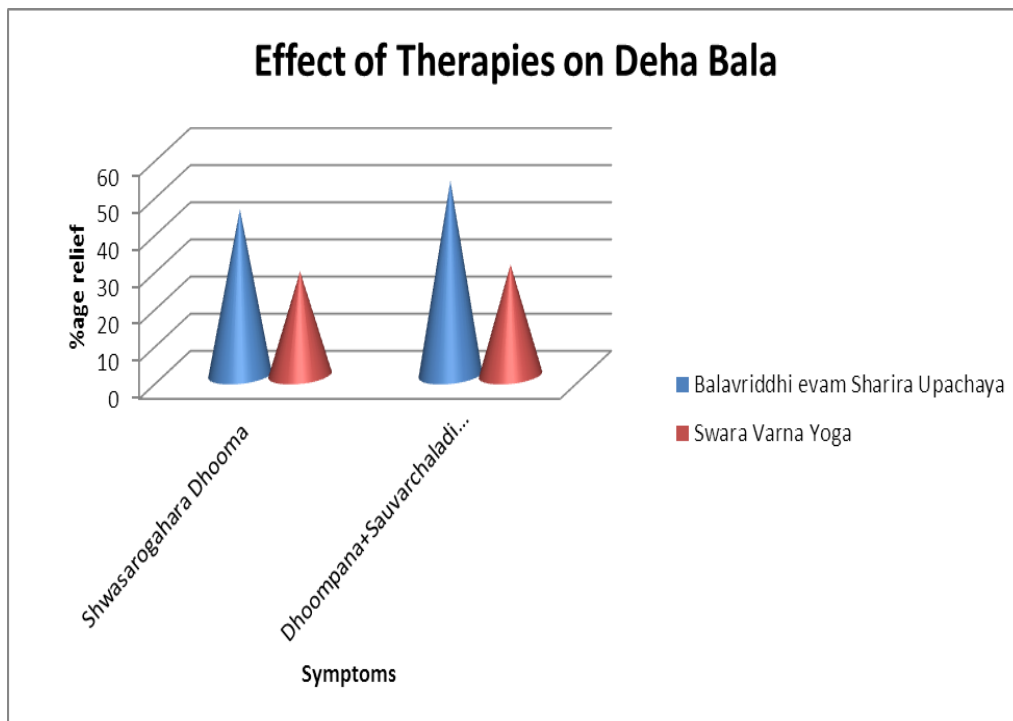
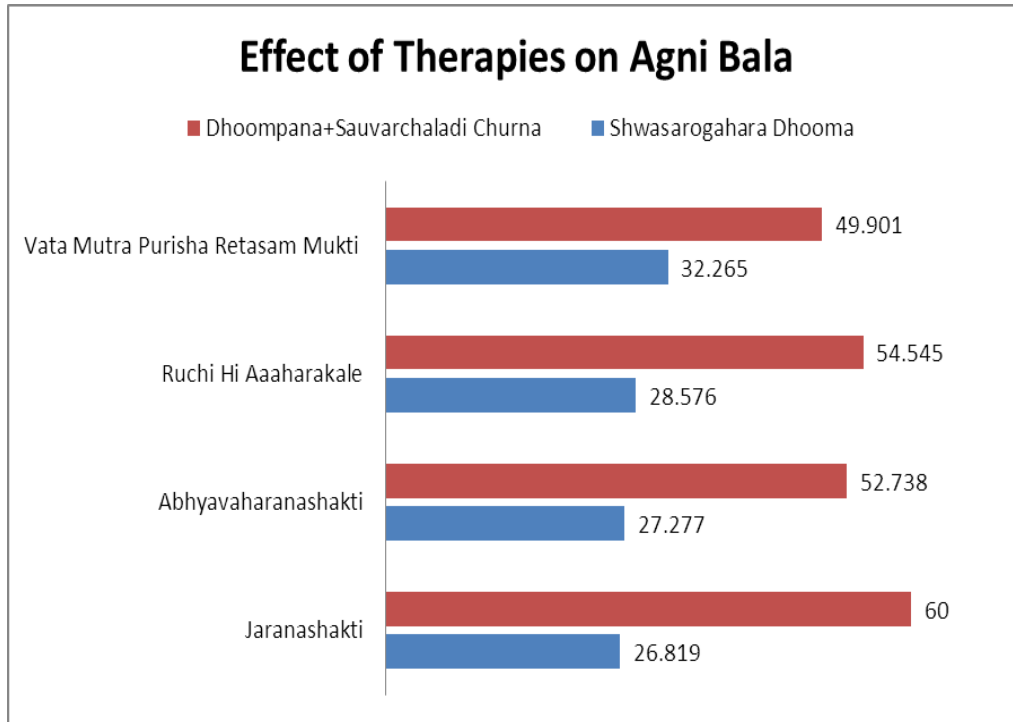
EFFECT OF THERAPY ON DEHA BALA.

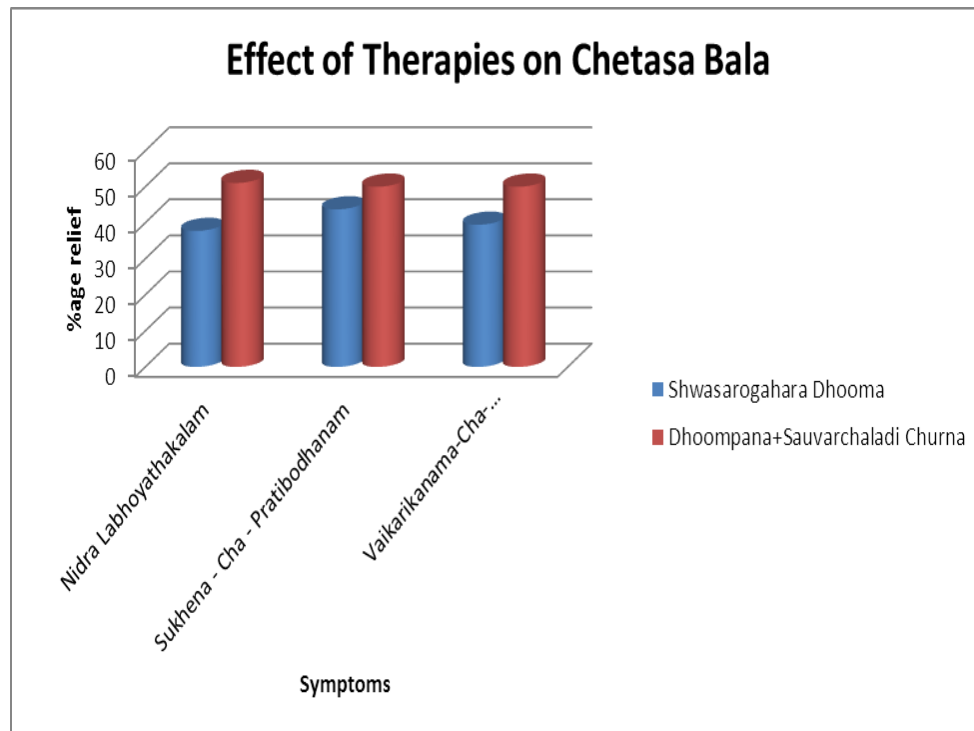
Symptoms	<i>Shwasarogahara Dhooma</i>			<i>Dhoompana+Sauvarchaladi Churna</i>		
	n	% relief	Significancy	n	% relief	Significancy
Balavridddhi evam Sharira Upachaya	30	44.671	0.0002	30	52.387	0.0002
Swara Varna Yoga	30	27.913	0.237	30	29.783	0.0012

EFFECT OF THERAPIES ON CHETASA BALA.

Symptoms	<i>Shwasarogahara Dhooma</i>			<i>Dhoompana+Sauvarchaladi Churna</i>		
	n	% relief	Significay	n	% relief	Significancy
<i>Nidra Labhoyathakalam</i>	30	37.747	0.0004	30	51.052	0.0002
<i>Sukhena - Cha - Pratibodhanam</i>	30	43.739	0.0032	30	50.017	0.0023
<i>VaikarikaAma-Cha-Swapnanam Adarshanam & Mano Buddhi-Indriya Avyapatti</i>	30	39.463	0.0026	30	50.017	0.0028







DISCUSSION

In ayurveda, *Ama* is considered to be responsible for the production of all types of internal diseases. *Ama* can be defined as a substance which is involved in the process of *paka* without attaining its final form.^[13] *Shamana Chikitsa* has not so much efficacy to expel out the *Sama Kapha* as well as *Malbhuta Shleshma*. To solve this purpose, *Dhumapana* is the best ‘*Karma*’ and herbal remedy described in various *ayurvedic* classics.

Total improvement observed in II group was 49.7% where as in I group it was only 35.80%. It showed that drug will be more effective when it is used with *Dhoompana* particularly.

With references to the overall effects, II group was better in bringing complete remission marked improvement & moderate improvement than I group where as mild improvement was more in I group than II group. Hence it can be said that *Sauvarchaladi Churna* with *Dhoompana* may form important part of asthma management.

CONCLUSION

Following conclusions are drawn from the current research project.

1. In *Tamaka shwasa*, there is vitiation of *Jathragni* as well as *Dhatwagni* mainly *Rasagni* leading to the production of *Ama* at *Koshtha* and *Dhatu* level, which is the root cause of *Tamaka shwasa*. *Ama* has a definite role in producing Allergic diseases.

5. In the pathogenesis, *Pratiloma Vayu* Plays an important role & inflammatory condition of airway results due to *Sama Vayu* which causes *Shotha & Srotorodha*. Hence patients of *Tamaka Shvasa* should be classified broadly under *Vata pradhana & Kapha pradhana Samprapti*.
6. *Prayogika Dhoompana* is one which is suitable for habitual and daily use in dinacharya. The drugs which are used in *prayogika Dhoompana* are neither *teekshna* nor *snigdha* and therefore chances of giving rise to any complications are rare. It has mucokinetic, mucolysis and *Sanghatbheda* property acts on *Malbhoota Kapha* induced *kapha* to expel out and it absorbs (*Shoshana*) *Sama Kapha* and *Prakrit Shleshma* in some extent.^[14]
7. Most Significant results were obtained in I group on *Rogabala* than II group. Frequency, Intensity and duration of attacks reduce significantly in both of the groups. It indicates Antihistaminic properties of remedy *Sauvarchaladi Churna*. *Amadoshhar* drugs breaks the pathology by its *Ushna, Amapachan* properties and long time use ends the *Kha-Vaigunya* in *Pranvaha Srotas* in long terms.
8. Improvement in P.E.F.R. was significant in I group as well as in II group. It indicates that Medicinal smoke does *samprativigghatan* in Allergic type of Asthma where *achayaprakopa samprapti* take places. Histamin, Prostaglandins which produce by autodegradation of mast cells are 'ASAATMYA' substances for the body. Body never accepts these and they not to reach at final transformation. So they are like 'Ama visha'.^[15]
11. Highly significant improvement was observed in *Kaphanisthivanam* in both groups. Improvement in *Kaphanisthivanam* shows that *Amadoshahara* property is beneficial to remove *Kapha* from *Srotasa & Dhoompana* also enhances the properties of drug.
12. Results of *Amadoshhar* effect of *Sauvarchaladi Churna* were very impressive. It proves that *Ama* is a basic and important etiopathological factor in the *Samprapti* of *Tamaka shwasa*. Thus *Ama chikitsa* is very useful in Asthma management and should always be considered this factor at the time of the management.
13. Use of *Dhoompana* (medicinal smoke) along with *Sauvarchaladi Churna* gives a best management in asthma care which is less harmful, cost effective and can be used for long time.
14. Low-cost asthma management programmed should be developed to ensure asthma care is available and affordable for all Socio-economic sectors within the population.
15. No adverse effects of the study drug were observed during the whole study period.

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