

## RASAYAN EFFECT OF VASAVALEHA IN PRANVAHASTROTASA IN SHWASVYADHI IN CHILDREN

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### ABSTRACT

**Aim:** To study *Rasayan* effect in *pranvahasrotasa* of *Vasavleha* on bronchial *asthma* (*shwasvyadhi*) in children. **Materials and methods-** In this study 60 patients of age group 6to12yrs irrespective of sex of *uttam* and *madhyam sharirbal* in *avegavastha* of *shwas* having complaints of previous attacks of dyspnea, cough, wheezing, increased respiratory rate are treated with *Vasavleha* 10ml for 5 to 9 year age group and 15 ml for 6 to 9 year age group 8 hrly for 60 days in experimental group and in control group patients were given prescribed *Aaharvihar* and *pathyapathyachikitsa*. Patients are observed by 1. Events of dyspnea (*shaws-kashtata*) 2.Increased *shawsveg* 3.wheezing 4.cough 5.vital capacity of lungs by spirometry. **Result-** *Vasavleha* reduces dyspnea, increased *shwasveg* wheezing and cough significantly and increases vital capacity in children given in doses of 10 to15ml 8hrly for 30 to 60 days. **Conclusion -**This research work concludes that *Vasavleha* acts as an excellent remedy as *Apunurodbhav chikitsa* of *asthma* as *Vasavleha* acts as mucolyte, expectorant, bronchodilator anti-allergic in *asthma*. It rejuvenates *Pranvahasrotasa* by *rasayan* effect.

**Keywords:** Rasayana effect, Vasavleha, Pranvahasrotasa, Shwasvyadhi.

### INTRODUCTION

*Asthama* is one of the common chronic debilitating diseases in world. It is estimated that around 300 million people currently have *Asthama*. Worldwide appr.80% of asthmatics report onset before of 6yr of age<sup>2</sup>.(10 to15% in 5to 11yrs age). *Asthama* is chr. Inflammatory condition of lung airways results in episodic air-flow obstruction, airway inflammation and airway hyperreactivity. Risk factors are presence of allergies, frequent RTI, LBW, exposure to smoke,dust and heredity etc.<sup>3</sup> Some suspect that it is disorder of immune system;when body fails to make enough protective antibodies.<sup>2,3</sup>the rate of *asthama* increases as communities adopt western lifestyle and increased pollution.

*Asthama* is a *kaphavata* predominant disorder, its incidence should be witnessed more either during *Balyavastha*, which is the normal time of *kaphadominance*. There is no cure for *Asthama* as per the conventional medical science. The management line is mainly based on short actingB2-agonist, theophylline, oral and inhaled glucocorticosteroids etc.;all of which cause significant sideeffects in long run.The WHO and international *Asthama* Council highlights that whenever there is use of traditional medicine in *asthama* care the conventional therapy should not be stopped because lack of evidence of safety and efficacy of these therapy.This highlights the need for clinical researches in

suitable design to evaluate the safety and efficacy of our therapy for *asthama*.<sup>14</sup>

In case of paediatrics *Avaleha* is one of the most popular *kalpana* for easy administration, palatability and long shelf life. It has been widely used as Rejuvenator (*Rasayan*) by *Aacharya*.<sup>1,10</sup> *Vasavleha* either prepared from *swarasa* or *kwatha* have shown consistent results for most of the symptoms.<sup>11</sup> Here Honey gives a soothing effect whereas *Ghrita* pacifies *vata* and *pitta*. Another reason for this is also supported by *Acharya Charaka* where he states that *Brihana chikista* is excellent for treating the *Shwasvyadhi*. This may be fulfilled by *Avaleha* as it contains *Guda*, *Ghrita* and Honey.<sup>1</sup>

## MATERIALS AND METHODS—

### ABOUT THE MEDICINE—

*VASA*—*Ras-Tiktakashay Vipak-katu, Virya-Sheet*<sup>7</sup>

*Vasa* is excellent remedy of respiratory disorders and probably this might become the drug of the millenium as these disorders are on upswing. *Vasa* apart from having volatile oils, contains a substance akin to bromohexine chloride that act as an expectorant. *Vasa* contains alkaloids vasicine (bronchodilator, expectorant), leaves and roots contains other alkaloids vasicione and vasicinolone and vasinol etc.<sup>8,9</sup>

*Vasa* makes sticky phlegm dissolved and aids in it easy exit. This gives utmost relief in productive bouts of cough. It reduces inflammation and spasm of bronchial tree. It also soothes the throat hence relives pharyngitis, laryngitis, chr. Cough. When taken for longer period of time; it builds up the whole respiratory system including lungs as Rejuvenator (*Rasayan*).<sup>5</sup>

**Sarkara----** (**misri/sugar**)— It fight off symptoms of stress and anxiety. It also increases the production of bile and aiding detoxification of internal organ. It may

improve digestion and used in weakened immune system and chronic fatigue. It is *Tridoshaghna*.

**Pippali**—It contains essential oils alkaloids, resins, waxy alkaloids, terpenoids, piperine, piplartine, piplasterol, sesamine, steroids, glycosides.<sup>8,9</sup> It has *katu ras, ushna virya and vatashleshmahar* property.

**Madhu--(honey)**—It has properties like *lekhana, sandhan, shodhana, ropana* and it is hygroscopic in nature having 3.2 to 4.5 ph. It is having ability to promote phagocytosis, detoxification and proteolytic action. It prevents colonization and bacterial growth in tissues.<sup>7,8,9</sup>

**Goghrita**—It is *madhur ,mridu, sheeta*. It is *vata pittashamak not shleshmavardhak*. It is *Deepak and balya*.

**Asthama---** (**Shwasvyadhi**)—The word *Asthama* means struggling for breath. It is a diffuse obstructive disease of airway; the elements causing airway obstruction are –

- Spasm of smooth muscle of bronchii and bronchioles.
- Oedema and irritation of mucous membrane of bronchii and bronchioles.
- Secretions in bronchioles that are viscid and mucoid and plug the lumen of bronchi and bronchioles.

The above factors together with the normal contraction of the air passage during expiration may secure to explain expiratory wheeze. This obstructs bronchi effectively and prevents sputum from being expectorate.

As attack progresses the closure of lumen of bronchii may progress Patient dies always in status asthmaticus due to almost complete occlusion of airway.

**Aim and objective** - To study *Rasayan* effect in *pranvahasrotasa* of *Vasavleha* on bronchial *asthama (shwasvyadhi)* in children.

**Study design** -

In this study 60 patients of age group 6 to 12 yr irrespective of sex of *uttam* or *madhyam sharirbal* in *avegavastha* of shwas having previous attacks of asthma were treated under:

<b>1. Experimental group—</b>	Patients were treated by Vasavleha 5gm to 6 to 9 yr age and 10gms to 9 to 12yr t.i.d. On empty stomach
<b>2. Control group —</b>	Patients were observed only by giving prescribed <i>Aahar vihar</i> .
<b>Selection criteria —</b>	Patients having c/o previous attacks of dyspnea, cough, wheezing, increased respiratory rate.
<b>Rejection criteria---</b>	Patients below 6yrs patients with serious medical emergencies, serious infections, patients having surgery indicated pathology.
<b>Observation—</b>	Patients were observed by following symptoms with following gradation and spirometry.

**Table No: 1**

S.No.	Symptoms	Duration	Gradation
1.	Dyspnea	Complete day and night	+++
		Only day or night	++
		Only in day	+
		No dyspnea	0
2.	Increased Respiratory rate	Above 40/min	+++
		40/min	++
		30 to 40/min	+
		30 to 20/min	0
3.	Cough	Day and night	+++
		Only day or night	++
		Only in day	+
		No cough	0
4.	Wheezing	Inspiratory and expiratory	+++
		Only expiratory	++
		Only inspiratory	+
		Absent	0

*Pathya Apathya in Shwas—Aahar-Supachya*(easy to digest),*laghu*(light diet), *sathisali*, *raktasali*, *godhuma*, *chagdugdha*, *honey*,*sura*, meat of chicken, parrot, rabbit. Vegetable like *Rason Patol*. Fruits like *grapes*, *pushkar*, add *trikatu* in meal. *Vihar —* To stay in warm room, wear warm clothes, not to suppress natural urges. *Aapathya —* *Abhishyandi* and *vidahi vish-tambhi aahar* like curd, milk .milk prod-

ucts, banana, and pickles. *Guru aahar* like nonveg, egg, fish, sweets. Idli, dosa. *Ruksha aahar* like snacks, fast foods etc., All allergens like dust, smoke, and eatables causing paroxysms of dyspnea should be strictly avoided.

*Vihar ---* Avoid contacts with allergens, cold climate, excess exercise, situations causing mental excitation or irritation. Avoid suppression of natural urges.<sup>12</sup>

Follow up of patients are recorded on 7<sup>th</sup>, 15<sup>th</sup>, 30<sup>th</sup>, 60<sup>th</sup> day by parameters as *lakshana shwaskastata (dyspnea)*, increased RR (*shwasveg*), cough, wheezing and vital capacity in spirometry.

### STATISTICAL ANALYSIS--- CALCULATIONS IN EXPERIMENTAL GROUP

Table No: 2

Mean difference in vital capacity	S.D	S.E.	t	P
133.33	50.74	9.264	14.39	2.15

At  $p < 0.05$  is highly significant.

### CALCULATIONS IN CONTROL GROUP. Table No: 3

Mean difference in vital capacity	S.D	S.E.	t	p
23.33	28.56	5.214	4.47	2.78

$P < 0.05$  is significant.

T value=2.00 at  $p < 0.05$

### Between Experimental And Control Group Unpaired T Test Applied

So difference in vital capacity in experimental group is highly significant than in control group.

Calculated T value=10.348 (at degree of freedom  $58(n_1 + n_2 - 2)$ )

Table No: 4

Symptom	Experimental Group	Control Group	Days/ Intervals
Shwas Kashtata	97% (0)	10% (+)	30 <sup>th</sup> day
Dyspnea	97% (0)	36.63% (+)	60 <sup>th</sup> day
Shwas Veg (Increased RR)	100 % (0)	97% (+)	30 <sup>th</sup> day
	100 % (0)	94% (0)	60 <sup>th</sup> day
Cough	86.67 (0)	100 % (++)	30 <sup>th</sup> day
	86.67 (0)	60 % (+)	60 <sup>th</sup> day
Wheezing	93.33%(0)	13.33 %(+)	30 <sup>th</sup> day
	93.33%(0)	13.33%(+)	60 <sup>th</sup> day

## DISCUSSION

*Aacharya Kashyapa* has given importance to *Leh Kalpana* in *Leha Adhyaya* separate chapter in *Sutrasthan*. Most of the *aveleha* contains *madhur dravya*, *ghruta* and *prakshepa dravya*. Here *Madhur* is of great importance as it reduces *tikta katu kashaya* taste of drug, ultimately making it more palatable and it also nourishes all *Dhatu*s along with *Oja*. Taste is of great importance for our children patients.<sup>13</sup> *Avaleha* has long shelf life also. Licking of *avaleha* generally on upper part of tongue enhances salivation due to its sweetness. Excessive salivation causes triggering of the

mixture over the nasopharynx and larynx which ultimately produces a soothing effect in the throat, relieving irritation. Secondly, these solution exposes the drug material to the mucosa, which may produce the local effect of the drug. *Vasavaleha* contains *Guda*, *Ghruta* and Honey. Here honey gives soothing effect *Ghruta pacifies Vata* and *Pitta*. Another reason for this is also supported by *Acharya Charak* as he stated that *Brihana chikitsa* is excellent for *Shwasa*.<sup>1,6</sup> *Vasa* apart from having volatile oils, contains a substance akin to bromohexine chloride that is very effective as expectorant. *Vasa* contains alkaloids *vasicine* (bronchodilator, expectorant), leaves

and roots contains other alkaloids vasicone and vasicinolone and vasinol etc. *Vasa* makes sticky phlegm dissolved and aids in its easy exit. This gives utmost relief in productive bouts of cough. It reduces inflammation and spasm of bronchial tree. It also soothes the throat hence relieves pharyngitis, laryngitis, chr. Cough. When taken for longer period of time ;it builds up the whole respiratory system including lungs as Rejuvenator(*Rasayan*).

## CONCLUSION

The number of disability adjusted life years {DALYs lost due to *asthama* worldwide has been estimated to be currently about 15 million per year worldwide, *asthama* accounts for around 1% of all DALYs lost, which reflects the high prevalence and severity to *asthama*. The number of DALYs lost due to *asthama* is similar to that of Diabetes, Cirrhosis of liver or Schizophrenia the burden of *asthama* in many countries is of sufficient magnitude to warrant its recognition as a priority disorder in government health strategies. Particular resources need to be provided to improve the care of disadvantage groups with high morbidity including certain racial groups and those who are poorly educated, live in large city or are poor. Resources also need to be provided to address preventable factor such as air pollution, wrong eating habits that triggers *asthama*. It is estimated that *asthama* accounts for 1 in 250 deaths are preventable due to suboptimal long term medical care and delay in obtaining help during the final attack.

In *Shwasvyadhi*, *Pathyapathya chikitsa* decreases severity of various symptoms but not significantly. *Vasavleha* reduces dyspnea, increased shwasveg, wheezing and cough significantly and increases vital capacity in children given in

doses of 5 to 10 gm t. i.d. for 30 to 60 days. *Vasavleha* does not create any side effect. This research work concludes that *Vasavleha* acts as an excellent remedy as “*Apunurodbhav chikitsa*” of *Asthama* as *vasavleha* act as mucolyte, expectorant, bronchodilator, antiallergic in asthma and Rejuvenates *Pranvahasrotasa* by *Rasayan* effect.

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