

AYURVEDA – AN EFFECTIVE SOLUTION FOR CHILDHOOD ASTHMA

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ABSTRACT

Children form unique and fairly large segment of human population. Worldwide approximately 80% of asthmatics disease report before onset of 6 yr of age. Childhood Bronchial Asthma varies widely differ from country to country. At the age of six to seven years, the prevalence ranges from 4 to 32%. The same range holds good for ages 13 and 14. In India, rough estimates indicate prevalence of 10% to 15% in 5-11year old children. It has also increased the number of preventable hospital emergency visits and admissions.

Childhood Bronchial Asthma has multifactor causation. Geographical location, environmental, racial, as well as factors related to behaviors and life-styles are associated with the disease. There is no cure for Asthma as per the Conventional Medical Science. *Kashyapa Samhita* is the first and foremost classic, which gave priority to *Balachikitsa*. As it is a *Kapha-Vata* predominant disorder, its incidence should be witnessed more either during the *Balyaavastha*, which is the normal time of *Kapha* dominance.

Management of childhood asthma through Ayurveda is a comprehensive therapeutic modality in itself. Ayurvedic medicine may help to decrease the recurrence and improve immunity and help in treating disease. *Kashyapa* mentions about the *chikitsa* of *Tamaka Shwasa* later in *Khila Sthana*. The GINA (Global Initiative in Asthma) 2004 workshop report recognizes the usage of Complementary and Alternative Medicines and Traditional Medicines for long-term management of Asthma. So here attempt is made to give an effective solution for the childhood bronchial asthma through the way of Ayurveda.

Keywords: Childhood bronchial asthma, Immunity, *Ayurveda*, *Avaleha*, *Kaumarabhritya*

INTRODUCTION

Children form unique and fairly large segment of human population. Asthma is a chronic inflammatory condition of the lung airways resulting in episodic airflow obstruction, airway inflammation and airway hyper-reactivity. Worldwide, childhood asthma appears to be increasing in prevalence, despite considerable improvements in our management.

Childhood asthma prevalence varies widely in different locales. Approximately 80% of asthmatics report disease onset before 6 yr. of age.¹ Asthma is major health concern globally and causes a great burden on the number of

lost school days and interferes with academic achievement and social interaction.² In India, rough estimates indicate a prevalence of between 10% to 15% in 5-11year old children.³ It has also increased the number of preventable hospital emergency visits and admissions.

Challenge:

Being the system of medicine indigenous to India and one of the important modalities of healing gaining in prominence outside its country of origin, *Ayurveda* has to address this burning issue.

There is no cure for Asthma as per the Conventional Medical Science. The management line is mainly based on

Short-acting β_2 -agonists, theophylline, oral and inhaled Gluco-corticosteroids etc, all of which cause significant side effects in the long run.⁴

Modern Medicine considers Asthma as a manageable disease and it is incurable. The WHO and International Asthma Council (IAC) consultation report published in 1998 on Implementation of Guidelines, highlights that wherever there is the use of Traditional Medicines in Asthma care, the Conventional therapy should not be stopped because of the lack of evidence of safety and efficacy of these therapies⁵. This highlights the need for clinical researches in suitable designs to evaluate the safety and efficacy of our therapies and drugs in the treatment of Asthma.

Ayurveda – Asthama

Concepts and Correlations

- Genetic Predisposition- *Sahaja Nidaana*
- Atopic-Airway Hyper Responsiveness- *Asatmyajanya Vikara*
- Passive Smoking, Occupational Sensitizers: *Nidaana Sevana*
- Respiratory Infections: *Vyadhi Kshamatwa*
- Weather/ Climate Changes: Role of *Ritu Charya*
- Airway Remodelling: *Rasayana*

The management of *Tamaka Shwasa* in practical sense has two aspects:

1. Management of *Vegavastha* of *Tamaka shwasa*; i.e. acute exacerbations.
2. Chronic management of the *Avegavastha*, where the frequency, duration and intensity of the attacks are minimised/ totally cured to give a quality life to the patient.

Differences when compared to adult medicine: In paediatric patients, due to the reasons cited before, strong *shodhana*

therapy is not advised due to possible complications. *Vamana, Nasya, Dhumapana, Kashaya* and *Tikta Rasa Yukta Kashayas* cannot administer that easily.

Proven and effective available solutions in current practice:

Single drugs:

- *Vasa (Adathoda vasica)*¹²
- *Padmapatra*⁸/*Pushkaramoola (Inula recemosa)*¹⁴
- *Bhargi (Clerodenum serratum)*¹⁵
- *Malaya Vacha (Alpinia galanga)*⁷
- *Shati (Hedychium spicatum)*⁷
- *Pippali (Piper longum)*⁷
- *Shirisha (Albizia lebeck)*¹⁶
- *Erandathaila (Carrica pappaya)*¹¹
- *Shunthi (Zinziber officinale)*¹⁸
- *Jeeraka (Cuminum cyminum)*¹⁹
- *Bala (Sida cordifolia)*²⁰
- *Haritaki (Embllica ribes)*²¹
- *Dugdika (Euphorbia Prostrata)*²²

Poly- herbal formulations:

- *Padmapatradi yoga*⁷
- *Vasa Avaleha*⁹
- *Bharangyadi Avaleha*¹⁵
- *Shirishavaleha*¹⁶
- *Nayopayam kashaya*¹¹
- *Vasa Haritaki Avaleha*¹²
- *Kantakari Avaleha*¹³

Form of administration:

- *Kashaya* with *anupana* as *Madhu*²³
- *Churna* with *anupana* as *Madhu*²³
- *Avaleha* with *Usnajala* or *Dugdha* as per necessary.²³

Panchkarma:

Mrudu Samshodhana.²⁶

Abhynaga with *tila taila* mixed with *lavan*.²⁴

Swedana – Hasta, nadi sweda.²⁵

Advantages over contemporary medicine:

GINA (Global Initiative in Asthma) workshop report has highlighted a few points worth our notice.³

1. The potential side effects of long-term use of inhaled gluco corticosteroids in both children and adults need to continue to be monitored.
2. The risk of side effects from inhaled gluco corticosteroids needs to be examined in malnourished children.

DISCUSSION

Acharya Kashyapa has given importance to *Lehya Kalpana* and has described a separate chapter, namely *Leha Adhyaya* in *Sutra Sthana*.⁶ Most of the *Avaleha* contains *madhura dravya*, *ghrita* and *prakshepa dravya* as base ingredients. Here, the use of *madhura dravya* is of great importance because it reduces the *tikta*, *katu*, *kashaya* taste of drug, ultimately making it more palatable and it also nourishes all *Dhatu*s along with *Oja*. *Vasa Swarasa/Kwathas* it contains alkaloid like vasicine and vasicinone are proven broncho dilators.⁹

Pushkara moola (*Inula racemosa*) and *Bhargi* (*Clerodenum serratum*) have anti-allergic activities in experimental models. *Shati* (*Hedychium spicatum*) have an anti-inflammatory effect. The mechanism of action of *Padmapatradi yoga* is not clear but ingredients of *Padmapatradi yoga* have bronchodilator, anti-inflammatory and antihistamine activities.⁷

Shirishavaleha prepared from heartwood shows significant enhancement in antibody formation, attenuation of body weight changes and suppression of immunological paw edema, while *Shirishavaleha* prepared from bark shows weak immuno modulatory activity.⁸ *Shirisha* (*Albizia lebeck* Benth), i.e., *Twak* (Bark) and *Sara* (Heartwood) as main ingredients was evaluated for humoral antibody formation and cell - mediated immunity in established experimental models.⁸ The Ethyle acetate a chemical

constituent of the drug *Bala*, has got an anti-inflammatory action, where as the previously done research works has proved the Anti-spasmodic action (Histamine induced) of Methanol content of the drug *Jeeraka*. It is also established that the hot water extract of *Shunthi* may decrease the formation of prostaglandins and leucotriens which are believed to be the initiators of pathogenesis of Bronchial asthma.¹¹

Anti-inflammatory, Anti-allergic, Anti-cholinergic, Anti-oxidant, Immuno modulatory etc. activities of *Bharagi*, *Shirisha*, *Vasa*, *Karkat shringi*, *Dashmula*, *Triphala* will also potentiate the anti-asthmatic activities of trial drugs.¹²

Views:

- Exploring classics for drugs and treatment modalities.
- Creating evidence based solutions.
- Utilizing current abundantly available herbs according to season and place.
- Better modes of administration considering the difficulties in administration and palatability according to children.
- Wide spread availability through national programmes.

CONCLUSION

Ayurveda approaches have regained their popularity, with their efficacy and safety aspects being supported by controlled clinical studies. Ongoing research worldwide has provided valuable clues regarding the precise mechanism of action of these *Ayurvedic* herbal alternatives and these herbs, have shown interesting results in various target specific biological activities such as broncho dilation, mast cell stabilization, anti-anaphylactic, anti-inflammatory, anti-spasmodic, anti-allergic, immuno modulatory and inhibition of mediators viz., leukotrienes, lipoxygenase, cyclooxygenase, platelet

activating, phosphodiesterase and cytokine, in the treatment of asthma.

Some Ayurvedic alternatives employed in these traditions are proven to provide symptomatic relief and assist in the inhibition of disease development as well. In nutshell, attempt should be made to develop polyherbal formulations which contain various herbs acting at particular sites of the patho physiological cascade of Bronchial Asthma for prophylaxis as well as for the treatment of Bronchial- Asthma and subsequent clinical studies on them.

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