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EXPLORING THE EFFICACY OF *DURALABHADI AVALEHA* IN PEDIATRIC ALLERGIC BRONCHITIS: A CASE STUDY ANALYSIS

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ABSTRACT

Introduction and Background: An allergy-related inflammation of the bronchial tubes is the hallmark of the common respiratory disease known as paediatric allergic bronchitis. It is a major global health concern for children, affecting their quality of life and creating management difficulties. **Background:** The 5-year-old boy arrived at Parul Ayurved Hospital with a series of symptoms suggestive of a respiratory disorder, including dry cough, hoarseness of voice, and dry mouth and throat. A comprehensive evaluation was warranted since these symptoms pointed to a potential respiratory issue. **Results:** Assessments of Cough symptoms were made on the Cough symptoms scale (CSS). The CSS gave the patient's discomfort a "4" on the day time and "5" at night time on the day of arrival. CSS decreased to a grade "2" on the day time and "3" at night time after 7 days of treatment. The CSS was rated grade "1" on the day time as well as at night time after 12 days of treatment. **Conclusion:** Ayurveda may offer a promising substitute for medication in cases of Allergic bronchitis of paediatric age group.

Keywords: Allergic bronchitis, Anti-histamine, Ayurveda, paediatrics, *Vataja Kasa*

1. INTRODUCTION & BACKGROUND

The incidence of allergic bronchitis in children has been rising rapidly, placing a significant strain on healthcare systems, and calling for efficient management techniques. Even though the illness usually gets better with the right care, insufficient control can still happen.

The symptoms of allergic bronchitis include persistent episodes of coughing, wheezing, tightness in the chest, and difficulty breathing. Allergens such dust mites, pet dander, pollen, mould, and certain foods can aggravate the condition. As opposed to infectious bronchitis, which is generally brought on by bacterial or viral infections, allergic bronchitis is the result of an overreaction by the immune system to particular allergens. The condition's hallmark symptoms are brought on by an inflammation of the airways caused by this hypersensitive reaction. While there are some parallels between allergic bronchitis and asthma, the main differences are in the aetiology and the absence of chronic airway obstruction seen in asthma.

When left untreated, *Kasa*, the crippling disease of *Pranavaha Strotas*, can cause terrible illnesses including *Shosh*, *Rajyakshama*, *Urakshata*, and *Rakttapitta* [1]. The Sanskrit word "*Kas*," meaning "*Gati*," is the source of the word *Kasa*. The vitiated *Prana Vayu* and *Udana Vayu*, which become even more exacerbated when

combined with other *Doshas*, are suddenly released with a sound akin to a shattered bronze vessel known as *Kasa*. In *Charak Samhita*, *Kasa* is called an autonomous sickness. One kind of *Shuska Kasa* that is ruled by *Vata* and *Pran Vayu Dusthi* is called *Vataja Kasa* [2]. *Ruksha*, *Sheeta*, and *Kashaya* are examples of *Hetu Sevana*. *Vataja Kasa*, which has the symptoms of *Kasa Vega*, *Uraha-Parshwashool*, *Shirshool*, *Swarbheda*, and *Daurbalya*, is caused by *PradhanaAhar*, *Alpabhojana*, *Upavasa*, *Mala-Mutra Vegavidharan*, *Ati-shrama*, *Atimaituna*, etc. [3]

Numerous herbomineral compositions are listed by *Ayurveda* for the treatment of *Vataja Kasa*. *Sharangdhar Samhita* mentions *Leha* as one of the *Kalpana*. The *Charak Samhita* mentions *Duralabhadi Avaleha* in relation to *Vataja Kasa*. Thus, the purpose of the study was to assess *Duralabhadi Avaleha's* effectiveness in *Vataja Kasa*. The purpose of the study is to evaluate *Duralabhadi Avaleha's* effectiveness in treating Allergic Bronchitis and *Shushka Kasa Vega* that is either associated with or unrelated to *Urah Parshwashool*, *Shirshool*, and *Swarbheda* [4].

2. Patient information

The 5-year-old boy arrived at Parul Ayurved Hospital with a series of symptoms suggestive of a respiratory disorder,

including dry cough, hoarseness of voice, and dry mouth and throat. A comprehensive evaluation was warranted since these symptoms pointed to a potential respiratory issue.

Chief complaints with durations

1. Dry cough for 6 days
2. Hoarseness of voice for 4 days
3. Dryness of mouth and throat for 5 days

Past medical history- No history of any chronic illnesses

Family history – No family history of any chronic illnesses

Immunization status- Complete according to age and schedule

Development history- Appropriate to age

Personal History

Diet:	Mixed
Appetite:	Decreased
Bowel:	Constipated, 1-2 times/week
Micturition:	4-5 times/ day, 1-2 times/ night
Sleep:	Sound
Dietary habits:	Recent intake of ice-cream and chocolates
Physical activity:	Sedentary

4. Clinical findings

General Examination

Anthropometry details	Height:	107 cm
	Weight:	18 kg
	Head circumference	50 cm
	Chest circumference	56 cm
	MUAC	17 cm
General examination	Cyanosis:	Absent
	Pallor:	Absent
	Icterus:	Absent
	Lymph nodes:	No palpable lymph nodes
	Clubbing:	Absent
	Respiratory rate:	20/minute
	Pulse rate:	87/ minute
	Temperature:	Afebrile

Systemic Examination

Respiratory:	No scar mark or discoloration, Bilateral airway entry clear, no added sounds
Cardiovascular system:	No discoloration/precordial bulging, dull note over precordium, S ₁ S ₂ normal, no added sounds
CNS:	Patient conscious and well oriented
Loco-motor:	Normal range of motion in all joints,
Nidan:	Ice cream, Chocolate
Dosha:	Vata
Pranavaha Srotas:	No DNS/congestion/Polyp/Rhinitis/Tonsilitis Bilateral airway entry clear, no wheezing, vesicular breathing.
Micturition:	4-5 times/ day, 1-2 times/ night
Sleep:	Sound
Dietary habits:	Recent intake of ice-cream and chocolates
Physical activity:	Sedentary

5. Diagnosis: *Vataja Kasa* (Allergic bronchitis)

6. Treatment Protocol:

Patient was advised *Dauralabhadi Avaleha* 2 gm BD after food with warm water for one

week. Patient was assessed on day 0, 3 and 7. Also follow up was done on 5th day from last visit (day 7).

7. RESULTS

Table 1: Grading of symptoms

S. No.	Assessment of symptom	Day 1	Day 3	Day 7	Last visit
1.	Episode of coughing Absent-0 1-5 episode/day -1 6-10 episode/day-2 >10 episode/day-3	2	1	1	0
2.	Hoarseness of voice Absent-0 Present-1	1	1	0	0
3.	Dryness of mouth and throat No dryness-0 Mild thirst-1 Thirst can be controlled-2 Thirst cannot be controlled-3	1	1	1	0
4.	Time of relief from cough and throat irritation Relief within 0- 15 minutes-0 Relief within 15-30 minutes-1 Relief within 31-60 minutes-2 Relief >61 minutes-3 No Relief -4	3	1	1	0

Table 2: Cough symptoms scale (CSS)

S. No.	Cough symptoms scale (CSS)	Day 1	Day 3	Day 7	Last visit
1.	DAY TIME Absent-0 Cough for one short period -1 Cough for >2 short period -2 Frequent coughing, which doesn't interfere with usual day time activities-3 Frequent coughing, which interfere with usual day time activities-4 Distressing coughs frequently at day time-5	4	2	2	1
2.	NIGHT TIME Absent-0 Cough on waking only- 1 Wake once or early due to cough- 2 Frequent waking due to cough-3 Frequent cough at night time-4 Distressing cough which is preventing sleep at night-5	5	3	3	1

Assessments of Cough symptoms were made on the Cough symptoms scale (CSS). The CSS gave the patient's discomfort a "4" on the day time and "5" at night time on the day of arrival. CSS decreased to a grade "2" on the day time and "3" at night time after 7

days of treatment. The CSS was rated grade "1" on the day time as well as at night time after 12 days of treatment.

8. DISCUSSION:

**1. Duralabha (*Fagonia cretica* Linn.)-
Tikta-Kashaya-Madhura Rasa (taste),**

Laghu-Sara Guna (properties), and *Sheeta Virya* (potency) are all possessed by *Dhanvayasa*. Along with *Tikta*, *Madhura*, and *Kashaya Rasa*, *Rajnighantu*, *Nighantu Ratnakar*, and A.P. I suggested *Katu Rasa*. *Ushna Virya* of *Dhanvayasa* was also described by *Raj Nighantu*. Its karma is seen as *Pittahara*, *Medohara*, *Vatahara*, and *Kaphahara*. *Dhanvayasa* is also known by the synonym *Duralabha*. According to the ayurvedic references, the plant *Dhanvayasa* can be used in the *Vikaras* of *Atisara*, *Grahani*, *Daha*, *Jvara*, *Visamjvara*, *Trishna*, *Prameha*, *Moha*, *Murccha*, *Raktapitta*, *Raktavikara*, *Kustha*, *Vatarakta*, *Gulma*, *Bhrama*, *Chardi*, *Kasa*, and *Mutraghata*. Its thrombolytic, neuroprotective, antioxidant, synergistic, cytotoxic, antitumor, analgesic, antipyretic, antiallergic, antimicrobial, and wound-healing properties are revealed by contemporary research [5].

2. *Hadychium spicatum*, or *Shati*, is beneficial for problems of the *Shula*, *Anaha*, *Vibandha*, *Kaphaja*, and *Vataja*. Its *Vranahara* quality may aid in the healing of damaged microvasculature. Numerous research have demonstrated the anti-inflammatory and analgesic properties of *H. spicatum* [6].
3. *Trisna-Nigrahaniya*, *Shulaprashamaniya*, and *Deepaniya* are

the properties of *Zingiber officinale*. *Z. officinale* possesses strong analgesic and anti-inflammatory properties. Thus, pacifying dryness of mouth and throat as well as pain.

4. *Draksha (Vitis vinifera Linn)*- Due to its ability to inhibit the expression of low-density lipoprotein (LDL) [7], antioxidative [8], anti-inflammatory [9], and anti-diabetic [10] as well as its hepatoprotective [11], renoprotective [12], and cardioprotective [13] properties, GSE has been shown to be important in the pharmaceutical, food, cosmetic, and medical fields. Furthermore, because of the 3,4,5-trihydroxyphenyl groups present in epigallocatechin, epigallocatechin-3-gallate, prodelphinidin, and castalagin, GSEs have drawn a lot of interest as antibacterial substances [14, 15].

9. CONCLUSION

Duralabhadi Avaleha can be used in Allergic bronchitis in paediatric age group, as it provided significant results in this case study.

Patient consent

Written permission for publication of this case study has been obtained from the patient's gaurdian.

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