Management of Recurrent Cough in Children with Ayurvedic Regimen a Case Study.

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Abstract

Kaumarbhrityais a well known branch that deals with vyadhis and children and their chikitsa, and when it comes to vyadhis the most predominant system of body which is affected is Pranavahastrotas. Many children and new born were died due to Pranavahastrotas dysfunction i.e. respiratory illness, so there management needs a different approach. The important reason of death of children below 5 years of age is pneumonia causing 18% of deaths below 5 years of age, also the morbidity of respiratory illnesses is grossly 70%(1). In developed countries, up to 25% children aged less than 1 years & 18% of children aged 1 to 14 years experiences Recurrent Respiratory Illness(2). Respiratory illness like common cold, difficulty in breathing, cough, wheezing is most commonly present in children. It occurs because of airway inflammation & child airway is small and narrow, making it easy for them to fill & get blocked with mucus. Poor Immunity and recurrent infections are the major concern in children. Repeated infections and recurrence of any disease may adversely affect the physical and mental growth as well. Respiratory tract illness accounts to about more than 50% of patients attending Pediatric OPD. Available treatment like mucolytic, expectorant, bronchodilators and now the use of inhaler cannot completely cure the patient and frequently use of these drugs can cause many health hazards, wheezing is a common clinical have had one episode of wheezing by 6 yr(3).

Keywords- Ayurvedic regimen, chronic cough, Shwaskuthar rasa in children, Kaumarbhritya.

I. INTRODUCTION

Early intervention is necessary in case of Kasa as it is a potential Nidanarthakara Vyadhi (disease having tendency to produce secondary diseases) to produce Kshaya (4) (a disease characterized with severe emaciation). It is noted that children suffering from recurrent RTI exhibit significantly hampered growth and development (including intellectual and social up-gradation). Depending upon the duration of the symptoms the cough can be classified as acute, subacute or chronic if it persists for less than 3 weeks, 3 to 8 weeks or more than 8 weeks respectively. The etiology of cough is diverse and includes environmental as well as infective causes. Post nasal drip and post infectious cough are two commonest reasons for subacute to chronic cough. The case study discussed here is of 11 year female child, who had recurrent episodes of cough and frequently received treatment but, had temporary relief and relapses were frequent. Then he came to Ayurvedic OPD and was given an Ayurvedic regimen (i.e. Abhrakbhasma, Sitopladi churna and Shwaskuthar rasa and Yashtimadhu churna). The child had significant relief from signs and symptoms of recurrent episodes of chronic cough. The recurrence or the frequency of disease was found markedly reduced. Ayurvedic management proved to be beneficial in this case of recurrent respiratory illness.

II. CASE STUDY

AIMS AND OBJECTIVE - To evaluate the role of Ayurvedic Regimen in the management of recurrent (chronic) cough.

III. MATERIAL AND METHODS

Study design- Present study is a single case study conducted in the department of Kaumarbhritya of Government Ayurved College(GAC), Osmanabad, Maharashtra.

Case report-A 11 year old female patient came in Kaumarbhritya OPD in GAC Osmanabad Maharashtra, with a complaints of recurrent cough, difficulty in breathing on and off and severity increases during winter season.
**History of present illness:** Patient was healthy before 1 and half year. But gradually she suffered with respiratory episodes in 1 and half year before and further that she had recurrent respiratory illness episodes start but cough more aggravates day by day. Recurrent episodes of – Cough, Dyspnoea, Running nose

**Associated complaints:** Pallor +++

**History of past illness:** – H/O Recurrent respiratory illness since last 2 years. An average of 2 to 3 episodes of Recurrent episodes of cough per month. No H/O any other major illness or any surgery.

**Drug history** – Frequent use of antibiotics, mucolytic/ bronchodilators, antihistamines drugs.

**Family History**- H/O Allergic Rhinitis to Grandfather

**Birth history** - 1. Antenatal – nonspecific
2. Natal – Full Term Normal Delivery, at hospital, Baby Cried Immediately After Birth, birth wt. – 2.5 kg.

**General Examination:**

<table>
<thead>
<tr>
<th>Table no.1</th>
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<tbody>
<tr>
<td>Built</td>
</tr>
<tr>
<td>General apperence</td>
</tr>
<tr>
<td>Temp.</td>
</tr>
<tr>
<td>Pulse</td>
</tr>
<tr>
<td>RR</td>
</tr>
<tr>
<td>Height</td>
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<td>Weight</td>
</tr>
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</table>

**Physical Examination**
1. Nadi - Kapahapradhan
2. Mala - Sama mala
3. Mutra - Samyakaprvrut14
4. Jivha - Sama
5. Shabda - Spashta 6. Sparsha - Samshithoshna
6. Druk - Samyak8. Aakrut - Madhyam

**Systemic Examination**
1. RS - B/L Wheezes were audible, Air entry slightly diminished.
2. CVS - S1S2 normally heard
3. CNS - Conscious and Oriented

**Diagnosis** – Clinically on the basis of signs and symptom, CBC, Chest X-ray

**Treatment Plan**

1. **First Line Treatment-Deepan - Pachan**

<table>
<thead>
<tr>
<th>AbhyantarAushadhi</th>
<th>Matra</th>
<th>Kalavadhi</th>
</tr>
</thead>
<tbody>
<tr>
<td>LashunadiVati + TrikatuChurna</td>
<td>20 gm + 20 gm</td>
<td>Twice a day for 10 Days</td>
</tr>
</tbody>
</table>

Mix with each other in the form of churna, 10 doses 2 gm each.

**Anupana – Ghrut**

**Aahar-Yojana**
During Deepan - Pachan period only advised to take Varan + Bhat along with Ghrit
Water- warm water advised for drinking

**Second Line Treatment –**
Ayurvedic Regimen

<table>
<thead>
<tr>
<th>AbhyantarAushadhi</th>
<th>Matra</th>
<th>Kalavadhi</th>
</tr>
</thead>
</table>
| Shwaskuthar rasa + Sitopaladichurna + AbhrakBhasma + Yashtimadhu churna | 25 tab (1 tab = 125mg)+ 25 gm + 7 gm + 25 gm  
Mix with each other in the form of churn  
15 doses BD(1 dose 2 gm each) | In the form of chura in divided doses for 15 days BD.  
Repeated cycle For 3 times with gap of 7 days after each cycle |
| Anupana                   | Honey                                                                |                                                                           |

IV. OBSERVATION AND RESULT

<table>
<thead>
<tr>
<th>Observation</th>
<th>Before Treatment</th>
<th>After Completion of regimen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sore throat</td>
<td>++</td>
<td>-</td>
</tr>
<tr>
<td>Chronic Cough</td>
<td>+++</td>
<td>+</td>
</tr>
<tr>
<td>Rhinitis</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Pallor</td>
<td>+++</td>
<td>-</td>
</tr>
<tr>
<td>Dyspnoea</td>
<td>+++</td>
<td>-</td>
</tr>
<tr>
<td>Weight</td>
<td>29.7kg</td>
<td>33.1kg</td>
</tr>
<tr>
<td>Anorexia</td>
<td>++</td>
<td>-</td>
</tr>
</tbody>
</table>

Histopathology report-
CBC report

Image 1. Before Treatment   Image 2. After Treatment

Radiological Findings – Chest X ray PA view
Chest X ray PA view of female child of 11 year. Before and after treatment clearly seen the improvement in chronic cough relieves within 2.5 months with ayurvedic regimen. Also the symptoms relieves and child feel better.

V. DISCUSSION
Ayurveda states that in children, the Prana, Dosha, Dhatu, Bala, Ojas are under developed, and therefore, they are the most vulnerable group in terms of illness. Therefore they should be supported externally to potentiate their immune system. Although available allopathic conventional management provides symptomatic relief, there is no conclusive evidence that they shorten the duration of symptoms, hence for above case we used proved ayurvedic preparation for chronic cough.

Shwaskuthar rasa—Shwaskuthar rasa is a well known preparation of Ayurveda valued for the treatment of recurrent allergic respiratory conditions. It is a herbomineral formulation contains herbs, purified Aconitum ferox (Aconite), Piper longum (long pepper), Piper nigrum (black pepper), and Zingiber officinale (ginger), and minerals that is, parada (mercury), gandhaka (sulfur), tankana (borax), and manahsila (arsenic disulfide) in purified form as per Ayurvedic text.\(^7\) P. longum have a traditional claims of Ayurveda for antiallergic and antiasthmatic activity\(^8\) P. nigrum suppressed and reduced the infiltration of eosinophils, hyper responsiveness, and inflammation, officinale are capable of inhibiting allergic reactions and is useful for the treatment and prevention of allergic diseases\(^9\) Review of literature revealed that Shwaskuthar rasa, apart from treating asthma and allergy, also used for the cure of chronic cough, laryngitis, tuberculosis, and stop their recurrence.

Yashtimadhu Churna—Yashtimadhu has been popularly used in Indian households to provide relief from a sore throat. This herbal medicine can treat cough, throat irritation and other upper respiratory problems. The antibacterial properties of Yashtimadhu help fight bacterial infections of the respiratory tract. Yashtimadhu is a popular herbal supplement that can boost your innate immunity and help your body fight diseases. Yashtimadhu can soothe irritated and inflamed bronchial walls. It also reduces chest congestion and relieves cough. The potent anti-inflammatory and antibiotic properties of Yashtimadhu makes it popular remedy to help get rid of phlegm.In Ayurvedic classical texts Yashtimadhu properties are very well explained by Maharshi Charaka\(^10\)

Abhrak Bhasma—AbhrakBhasmaAbhrakBhasma was used as Ayurvedic medicine to cure various diseases such as asthma, tuberculosis, cancer, hepatic dysfunction, diabetes, and so on. Abhrak is considered to be beneficial in the management of Asthma which occurs due to imbalanced Kaphadosha. Abhrak Rasayan (rejuvenation) and Kapha-balancing properties promote the secretion of sputum by the air passages. This helps reduce the formation and accumulation of mucus in the respiratory passages, thus managing the symptoms associated with Asthma.\(^11-12\)

Sitopaladi Churna—Depending on the nature of the cough, it may be mixed with honey, water, or ghee or given alongside Other herbal formulations. Animal studies established its ability to block cough. The anti-tussive activity of this medication is assign to its ability to effect the central nervous
system and suppress a cough. This soft remedy is considered safe enough for children as well.\(^{(13)}\) The immune system responds to an allergen such as dust, dander, pollen etc. by releasing a chemical known as histamine. This is responsible for sign or symptoms like running nose, watery eyes, or bitter throat you experience during an allergic reaction. Animal studies show that sitopaladichurna has antihistaminic activity and can help you tackle allergies. It inhibits the release of inflammatory mediators from mast cells in our body and stabilizes them. This, in turn, helps to control those classic allergy symptoms.\(^{(14)}\)

VI. CONCLUSION

From above case study we can confirm say that it very important to have an Ayurvedic approach in recurrent respiratory illness like chronic cough, chronic rhinitis etc. Kaphadushti and Dhatukshaya in recurrent respiratory illness is the prime thought which should be considered while treating the patient and proper ayurvedic interventions should be administered. Patient had significant relief recurrent episodes of respiratory illness by given ayurvedic regimen. Thus, Ayurvedic Regimen is beneficial in prevention and management of recurrent respiratory illness.

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