

# WORLD JOURNAL OF PHARMACEUTICAL RESEARCH

SJIF Impact Factor 8.084

Volume 10, Issue 14, 1910-1915.

Research Article

ISSN 2277-7105

# TO EVALUATE THE CLINICAL EFFECT OF PIPPALI CHURNA IN THE MANAGEMENT OF KAPHAJA KASA IN CHILDREN

Dr. Sneha Gutakar\*

Associate Professor, Babe Ke Ayurvedic Medical College and Hospital Moga.

Article Received on 04 Oct. 2021,

Revised on 25 Oct. 202, Accepted on 15 Nov. 2021

DOI: 10.20959/wjpr202114-23183

# \*Corresponding Author Dr. Sneha Gutkar

Associate Professor, Babe Ke Ayurvedic Medical College and Hospital Moga.

## **ABSTRACT**

Kasa is one of the most common condition found in children, which demands greater concern. It occurs due to the irritation of mucous membrane of respiratory tract. It is the defence mechanism of the respiratory system to expel out any foreign objects like dust particles, Pollens etc or the secretions from trachea and bronchi. Kasa Roga has been classified into different types on the basis of involvement of doshas. Of which Kaphaja Kasa is the most frequently observed condition in paediatric patients since Balyavastha kala has predominance of Kapha. In children Shamana Chikitsa is very easy and comfortable as compared to Shodhana Chikitsa. Pippali Churna

explained by *Sharangdhara* is found very effective in curing the *Kasa Roga* by the reducing the throat infection, sputum, and other symptoms of *Kasa Roga*.

**KEYWORDS:** Kaphaja kasa, Pippali Churna, Shodhana, Shamana.

# INTRODUCTION

According to modern science cough has been considered as a symptom. It has broad spectrum etiologies ranging from allergans to infections. The rate of prevalence of cough in children aged between 1 to 16 years is 25% as seen all over the world.

Kasa in Ayurveda has been explained as a disease presenting the symptoms of respiratory tract diseases. All the Acharyas have mentioned 5 types of Kasa and Kaphaja Kasa being most common in children as kapha is the main culprit of Kasa in them. Kaphaja Kasa is Characterised by Kaphasampoorna Ura (Feeling of fullness of chest with phlegm), Mandagni (loss of appetite), Aruchi (Anorexia), Peenasa (Rhinitis), Lomaharsha (horripilations), Aasyamadhurya (Feeling of sweetness) and cough with thick sputum.

Different line of treatments have been explained in *Ayurveda* from which *Shamana Chikitsa* is the easily acceptable and effective method adopted in case of children. Different researches have been carried out with different formulations. In present research work the herbal drug *Pippali Churna* mentioned by a *Acharya Sharangdhara* has been taken. As explained by *Sharangdhara Pippali churna* is very effective in curing *Kasa Roga* in children.

#### **OBJECTIVES**

To study the effect of pippali Churna on Kaphaja Kasa in children.

# MATERIAL AND METHODS

30 patients were randomly selected from opd of SLNAC Amritsar. General examination followed by systemic examination was carried out in all subjects presenting with *Kaphaja Kasa*.

# **Drug and Duration of trial**

*Pippali Churna* 200mg BD orally with *madhu* after food was given to the patients for a period of 7 days with follow up after 4 days to evaluate the therapeutic effect of drugs. Observations made and Results so obtained were computed stastically for appropriate conclusions. To assess the effect of therapy objectively all the sign and symptoms were given scoring depending upon their severity.

# **Inclusion criteria**

- 1. 10 to 16 years of age of children were selected.
- 2. Patients irrespective of sex, caste, occupation were selected.
- 3. Patients with cough less than seven days duration were selected.
- 4. Patients presenting with symptoms as described in *kaphaja kasa* were selected.

### **Exclusion criteria**

- 1. Kaphaja kasa associated with jwara.
- 2. All other types of *kasa* except *kaphaja kasa*.
- 3. Patients having all other diseases like Pneumonia, Bronchial Asthma, Bronchiectasis, Pulmonary Tuburculosis etc.

#### Criteria of assessment

Assessment of patient was done before the treatment, after the treatment and with follow up after 4 days on the basis of improvement of clinical features.

- 1) Frequency of cough bouts: The number of cough bouts that occur in one hour.
- i. Absence of bouts of cough 00
- ii. Less tha 3 bouts of cough 01
- iii. 3 to 7 bouts of cough 02
- iv. More than 8 bouts of cough 03

# 2) Nasal discharge (*Pratishaya*)

- i. No Nasal discharge. 00
- ii. Occasional nasal discharge. 01
- iii. Frequent nasal discharge. 02
- iv. Continuous nasal discharge.03

# 3) Disturbance of sleep

- i. Cough not interfering with sleep 00
- ii. Cough occasionally disturbing sleep 01
- iii. cough before sleep or wakes the 02 child in the morning
- iv. Cough always disturbs sleep 03

# 4) Loss of appetite

- i. Taking normal diet with interest 00
- ii. Taking normal diet without interest. 01
- iii. Taking diet without interest, unable 02 to finish regular amount.
- iv. Not interested in taking food 03

# 5) Sputum

- i. No productive cough 00
- ii. Serous Expectoration with traces of 01
- iii. Thick sputum.
- iv. Moderately thick sputum. 02
- v. More quantity of thick white sputum 03

# 6) Added sounds crepitations

- i. No sound 00
- ii. Present in one or two zones of chest. 01
- iii. Distributed here and there in the entire 02 chest zone

#### RESULT

# **Effect on subjective parameters**

- **Frequency of cough bouts** Mean Score before treatment was 1.90 which lowered down to 0.19 after treatment, which was highly significant.
- **Disturbance of sleep** Mean Score before treatment was 1.60 which lowered down to 0.10 after treatment, which was extremely significant.
- Nasal discharge- Mean Score before treatment was 1.40 which lowered down to 0.20 after treatment, which was extremely significant.
- Loss of appetite- Mean Score before treatment was 2.01 which was lowered down to 0.31 after treatment, which was extremely significant.
- **Sputum-** Mean Score before treatment was 2.14 which was lowered down to 0.11 after treatment, which was extremely significant.
- **Crepitations-** Mean Score before treatment was 0.8 which was lowered down to 0.05 after treatment, which was extremely significant.

# Clinical features of kaphaja kasa in children

- *Nishteevana* Mean Score before treatment was 2.82 which was lowered down to 1.12 after treatment, which was highly significant.
- **Kasa severity-** Mean Score before treatment was 2.90 which was lowered down to 1.11 after treatment, which was highly significant.
- *Kaphapoorna deha* Mean Score before treatment was 1.70 which was lowered down to 0.70 after treatment, which was highly significant.
- **Throat congestion-** Mean Score before treatment was 0.93 which was lowered down to 0.17 after treatment, which was highly significant.
- *Mandagni* Mean Score before treatment was 2.86 which was lowered down to 0.60 after treatment, which was highly significant.
- *Peenasa* Mean Score before treatment was 2.83 which was lowered down to 1.04 after treatment, which was highly significant.

• *Aruchi*- Mean Score before treatment was 2.70 which was lowered down to 0.62 after treatment, which was highly significant.

#### **OBSERVATION**

The *Vatakaphahara* properties of trial drug were effective in controlling symptoms like *Kasa* severity and *Bahul snigdha ghana kapha Nishteevana*.

The properties like *Laghu Ruksha*, *Ushna veerya* and *Katu Rasa* are sufficient to control Throat congestion and *Kapha chedhana* done by the drug pacifies the symptoms like *Kaphasampoorna deha*.

The Properties like *Katu Rasa and Deepana Pachana* helped in controlling *Aruchi* and *Mandagni* respectively.

The properties like *Ruksha Guna*, *Ushna Guna* helped in *Srotoshodhana* and removing *Vatasanga* and thus clearing out the *Pranavaha Srotas*.

# **DISCUSSION**

Indulgence in *Kaphavardhak Ahara* and *vihara* increases the incidence of *Kaphaja Kasa* in children since *Kapha* is predominant in this *avastha*. Different etiological factors like dust, Pollens etc and *Kaphavardhak Ahara* Viharas causes aggravation of *Kapha* lead to the hyper secretion of mucus and obstruction of respiratory tract which results in *Kasa* in children.

The probable mode of action of *pippali* is that it has *Kasahara* and *kaphahara* properties. *Pippali* has *Katu rasa*, *Ushna* and *Teekshna guna* and *Madhura vipaka*. *Ushna* and *Tikshana Gunas causes kapha bhedana*, *kapaha vilayana* and *kaphanisarana*. *Kaphashthivana* leads to *Srotoshudhi* which further corrects *Vata Sanga* and *Vimarga Gamana*. Hence leads to *Vyadhi Shamana*.

The *Pippali* reduces the Broncospasm due to its central stimulating action and reduction in the recurrence of cough is attributed to improvement in the bala of *Shvasana Samsthana* (Respiratory immunity). The *Pippali* is having anti histaminic activity with its mast cell stabilizing capacity. These all actions contribute in controling and curing cough.

Pippali helped in improving overall strength of children by enhancing Agni Bala, Deha bala and Satva bala. Pippali promotes proper digestion and assimilation of consumed food

substances by enhancing the production and action of digestive enzymes from stomach, liver and pancreas. Proper assimilation and tissue utilisation of *Ahara Rasa* brings out the best qualities of next formed *Dhatu* leading to proper *Dhatu Sarata*. *Deha bala* is improved by attainment of optimal *Dhatu sarata*. Further immune system of the body plays an important role on the status of *deha bala*, thus *pippali* by its immunomodulatory activity through promotion of cell mediated imunity (like enhancing phagocytic activity and macrophage migration).

### **CONCLUSION**

The *Vata* and *Kapha doshas* gets vitiated in the manifestation of *Kasa Roga*. These vitiated *Doshas* causes *Rasa Dhatu dushti* which further leads to *Srotoshudhi* and causes *Mandagni*, *Aruchi* and *Kasa Roga*. Thus the drug is palatable, easy to administer to children when given with *Madhu* and safe with no adverse effects and cost effective also. Hence the drug *Pippali Churna* is effective in treating *kaphaja kasa* in children.

#### REFERENCES

- Agnivesha, Charaka Samhitha, Revised By Charaka and Dridabala With Ayurveda Deepika Commentary of Chakrapanidatta, Edited By Vaidya Yadavji Tri kamji Acharya, Chaukambha Publications, New Delhi Sutra Sthana, 2016; 738(76): 11 – 43.
- 2. Sarangadhara, Sarangadhar Samhitha Translated Into English By Himasagara Chandra Moorthy, Chauk hambha Orientalia, Varanasi, Choorna Kalpana, 2010; 6, 08, 09: 153.
- 3. Brahmanand Tripathi, Charak samhita, Chaukhamba surubharti prakashan, 2007; 434.
- 4. Jindal SK, Aggarwal AN, Gupta D, Agarwal R, Kumar R, Kaur T, Chaudhry K, Shah B. Indian Study on Epidemiology of Asthma, Respiratory Symptoms and Chronic Bronchitis in adults (INSEARCH) International Union Against Tuberculosis and Lung Disease, 2012; 16(8): 1270- 1277.
- 5. Yogratnakar Samhita, Lakshmipati Shashri, Chaukhamba Sanskrit Sanstan, Varanasi, 2002; 432.
- 6. Agnivesha, Charaka Samhita, Revised By Charaka And Drdhabala With The Ayurveda-Dipika Commentary Of Chakrapanidatta, Edited By Vaidya Yadavjitrikamjiacharya, Chaukhamba Prakashan, Re print Chikitsa Sthana, Chapt, 2007; 580: 18 - 17.