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EFFICACY OF KANTAKARI MARICHA LEHA ON KAPHAJA KASA IN CHILDRENOF AGE GROUP 1 TO 5 YEARS.

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ABSTRACT

Kasa (Cough) is the most common symptom of airway and lung diseases. It can be a presenting symptom in most of the clinical conditions. Kasa is the debilitating disorder of Pranavahasrotas. Moreover the pathophysiology of Kasa almost exactly correlates the mechanism of cough reflex. As per modern science cough is a symptom but in Ayurveda Kasa (cough) is a separate vyadhi seen commonly in children. It is the 5th common symptom and most irritating in children. Approximately 25-30% of the world population children suffer from Kasa. There are five types of kasa. Kaphaja Kasa is one of them which is undertaken for study because kapha is predominant in balyawastha and most of the Kaphaja vyadhi's are seen in balyavastha.

KEYWORDS: Kaphaja Kasa, Kantkari, Maricha.

INTRODUCTION

Kasa is the debilitating disorder of Pranavaha srotas. Kasa (Cough) is the most common symptom of airway and lung diseases. The environment is the leading cause for cough especially in children. Approximately 25-30% of the world population children suffer from Kasa. Hence kasa vyadhi is selected for study.

The prevalence rate of cough is more in 1 to 5 years. The respiratory problems are also common in age group of 1 to 5 years. Hence the age group of 1 to 5 years is selected.

If Kasa is not treated in time it may lead to life threatening conditions. Also it has been mentioned by Vagbhata that, if Kasa is not treated properly in time it may give rise to Shwas, Kshayrog, Chardi etc.[1] So it is important to treat this vyadhi immediately in its early stage.

While explaining Kasachikitsa, shodhan and shaman are advised. As the Balak is sukumar and having asampurnabala shaman chikitsa is preferred. While explaining Kasa Chikitsa in A. S. Acharyas has mentioned Kantakari Maricha Leha for shaman chikitsa.[2] Kantakari (Solanum xanthocarpum) and Maricha (Piper nigrum) are kasahara and kaphaghna.[3] so they are undertaken for clinical study.

MATERIALS AND METHODS

This was an informed, consented, open clinical trial. Total 30 patients of age group 1 to 5 years from OPDwere taken for clinical trial. Kantkari MarichaLeha freshly prepared and given with honey (anupan) to patients four times a day.

The dose of the drug was decided and finalized, based on the principle of drug dosing according to Sharangdhar Samhita.[4]

Table No. 1: Dose of Kantakari Maricha as per Age.

Age	Churna matra in mg	Kantakari matra in mg	Maricha matra in mg	Madhu matra
1 Year complete	90 mg every 6 hourly	45 mg every 6 hourly	45 mg every 6 hourly	180 mg
2 Years complete	180 mg every 6 hourly	90 mg every 6 hourly	90 mg every 6 hourly	360 mg
3 Years complete	270 mg every 6 hourly	135 mg every 6 hourly	135 mg every 6 hourly	540 mg
4 Years complete	360 mg every 6 hourly	180 mg every 6 hourly	180 mg every 6 hourly	720 mg
5 Years complete	450 mg every 6 hourly	225 mg every 6 hourly	225 mg every 6 hourly	900 mg

The selected children were treated with drug for period of 7 days. Starting of treatment considered as day 1st. Child was subsequently followed up on 3rd, 5th and 7th day.

The patients were evaluated on assessment parameters using gradation over a period of 7 days.

Inclusion Criteria

- Patients with Kaphaja Kasa Lakshana.
- Patients between age group of 1-5 years.
- Patients with Kasa as a major symptom with history of not more than 3 days.
- Patients of either sex.

OBSERVATIONS

1) Effect On Kasa Vega

The effect of KANTAKARI –MARICH LEHA on kasavega was significant (P<0.05). Study reveals improvement on kasa.

Table No. 2: Effect of Kantakari Maricha Leha on Kasa Vega.

Kasa Vega	Wilcoxon Signed Rank W	% Effect
	-5.152[a]	91.5

Since observations are on ordinal scale, we have used Wilcoxon Signed test.

Table No. 3: Distribution of Rate of Change in Kasa Vega.

Kasa Vega	
Follow Up	**Rate of Change**
1 to 3 Day	0.8
3 to 5 Day	0.6
5 to 7 Day	0.8
1 to 5 Day	1.4
1 to 7 Day	2.2
3 to 7 Day	1.3

2) Effect on Chardi

Study reveals improvement on Chardi.

Means the effect of Trial Drug on Chardi was significant.

Table No. 4: Effect of Kantakari Maricha on Chardi.

Chardi	Wilcoxon Signed Rank W	% Effect
	-4.041[a]	85.3

Since observations are on ordinal scale, we have used Wilcoxon Signed test.

Table No. 5: Distribution of Rate of Change in Chardi.

Chardi	
Follow Up	**Rate of Change**
1 to 3 Day	0.4
3 to 5 Day	0.3
5 to 7 Day	0.2
1 to 5 Day	0.7
1 to 7 Day	1.0
3 to 7 Day	0.6

3) Effect on Kapha Nishtheevan

The effect of Trial Drug on Kapha Nishtheevan was significant. Study reveals improvementon Kapha Nishtheevan.

Table No. 6: Effect of Kantakari Maricha on Kapha Nishtheevan.

KaphaNishtheevan	Wilcoxon Signed Rank W	% Effect
	-3.873[a]	100.0

Since observations are on ordinal scale, we have used Wilcoxon Signed test.

Table No. 7: Distribution of Rate of Change in Kapha Nishtheevan.

Kapha Nishtheevan	
Follow Up	**Rate of Change**
1 to 3 Day	0.0
3 to 5 Day	0.4
5 to 7 Day	0.1
1 to 5 Day	0.4
1 to 7 Day	0.5
3 to 7 Day	0.5

4) Effect on Crepitations

There is no significant change in the median for crepitations score in Trial Drug.

Table No. 8: Effect of Kantakari Maricha on Crepitations.

Ausculatation for Crepitations	Wilcoxon Signed Rank W	% Effect
	-3.606[a]	81.3

Since observations are on ordinal scale, we have used Wilcoxon Signed test.

Table No. 9: Distribution of Rate of Change in Crepitations.

Ausculatation for Crepitations	
Follow Up	**Rate of Change**
1 to 3 Day	0.0
3 to 5 Day	0.2
5 to 7 Day	0.2
1 to 5 Day	0.2
1 to 7 Day	0.4
3 to 7 Day	0.4

DISCUSSION

- Incidence of Kaphaja kasa was more common in age 1 to 5 year.
- Guru and Madhuragunatmak Aahara were found common Aharaja Hetu for Kaphajakasa in children.
- Due to the properties of Kantakari like Tikta, Katu Rasa, Katu Vipaka and as it is Kasahara and Kaphaghna in action it is effective in Kaphaja Kasa. It is a rich source of steroidal-glyco-alkaloids
- Active principle Solasodine has shown immunosupressive activity and other studies have confirmed its antihistaminic and antiallergic action which are essential for relieving asthma like symptoms.[5]
- As Maricha has Katu Rasa, Katu Vipak, Tikshna, Rukshna and Laghu guna it does Kaphanissaran and Kaphashoshana and does Agneedeepan. Thus effective in Kaphaja Kasa. Studies have revealed recently that the active content piperine influences enzymes leading to detoxification, enhancement of the absorption and bioavailability of herbal and conventional drugs.[6]
- Thus Kantakari Maricha in Leha form relieves associate symptoms of Kaphaja Kasa Vyadhi.
- It was observed that if the drug is given based on the principle of drug dosing according to Sharangdhar Samhita. The volume of drug becomes too high. So the dose was cut down to half i. e.90 mg per dose in 1 year and 270 mg per dose in 3 years complete. Secondly, it was also thought, while reducing the dose, that the Maricha is very Ushna and very Tikshna. As Ushna, Tikshna aushadhis are contraindicated in children and if are absolutely indicated there dose should be reduced. For all these above mentioned reasons the total dose was brought down to half.

RESULT

Parameters like Kasavega, Kaphanishteevan, Chardi and Crepitations were reduced in 6-7days whereas Aruchi and Agnimandya was reduced significantly.

No any adverse effect noted.

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