

EFFECT OF KAMPILLAKA (*Mallotus philippinensis*) CHURNA ON INTESTINAL WORMS

Mukesh Kumar Dubey¹, Vivek Agarwal^{2*}

1. Asst. Professor, Department of Agad Tantra, M.S.M. Institute of Ayurveda, BPS Women University, Khanpur Kalan, Haryana, India.
2. Asst. Professor, Department of Rog Nidan, M.S.M. Institute of Ayurveda, BPS Women University, Khanpur Kalan, Haryana, India.

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Abstract

The descriptions about worms have been discussed in Sushruta Samhita and Charaka Samhita in detail. According to modern counterpart, it was found that worms are commonly found in patients belonging to backward areas because of improper maintenance of hygiene. Hence, mortality associated with worm's manifestation is rarely found but it is still a challenge for health care system. The present study is an attempt to look into the magnitude of this problem in our communities where hygiene cannot be maintained specially in backward areas. A subtotal of 75 patients was studied. Out of 75 patients, 50 patients have *Ascaris lumbricoids*; ten patients have hook worm infection and fifteen have *Entamoeba histolytica* in stool examination. It was observed that the overall prevalence of *Ascaris lumbricoids* manifestation is 66.66% that is chances of *Ascaris lumbricoids* are greatest and these patients were treated by Kampillaka (*Mallotus philippinensis*) Churna (powder of fruit hairs) for four weeks. Out of 50 patients, forty two patients were benefited by Kampillaka Churna. While in other two categories (Hook worm and *Entamoeba histolytica*), effects of this churna was found to lesser extent.

Key words: Kampillaka Churna, Worm infestations, *Ascaris lumbricoids*, Hook worm, *Entamoeba histolytica*.

*Address for correspondence:

Dr. Vivek Agarwal,
Assistant professor, Department of Rog Nidan,
M.S.M. Institute of Ayurveda, BPS Women University,
Khanpur kalan, Haryana, India – 131 305
E-mail: drvivek91@gmail.com

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INTRODUCTION

Krimi (worm) manifestation is an important disease in Ayurvedic science. The disease is described in detail with respect to its aetiology, clinical features and treatment. The term krimi as mentioned in Ayurvedic classics have broad meaning. It includes all types of macro and micro, pathogenic and non-pathogenic organism. In classical text along with vata, pitta and kapha; sukshma jantu are also supposed to be responsible for creating disease. According to Ayurvedic literature, there are twenty types of worms^[1] because of three originating sources-faeces, kapha and blood.^[2] Gandu pad krimi^[3] (*Ascaris lumbricoides*) originate from faeces, they are reddish, long and fall out while producing itching in anus. They also cause colic, gurgling sound, diarrhea and loss of digestive power.^[4] *Ascaris lumbricoides* lives in the lumen of small intestine where it moves freely. It is a soil transmitted helminthes; the eggs remain viable in the soil for months and years under favorable condition. Infection rates are high in children; they are the most important disseminators of infection. Adults seem to acquire some resistance. There is high degree of host-parasite tolerance.

Ankush mukh krimi (*Ancylostoma duodenale*) arises from aggravation from kapha. It is also known as Hook worm. Adult lives in the intestine mainly jejunum where they attach themselves to the villi. Infection occurs when the larva enters the body through the skin, most commonly through the feet. Hook worm infection causes chronic blood loss and depletion of body's iron stores leading to iron deficiency anaemia. This has implications for child health in terms of retarded physical growth and development; for the health of mothers in terms of increased morbidity, abortion and impaired lactation and for the health of adults in terms of diminished capacity for sustained hard work. Hook worm infection exerts a significant and harmful

effect on various aspects of economy and quality of life of a community, especially in three major areas; these are nutrition, growth and development, work and productivity and medical care costs.^[5] Sashoola krimi (*Entamoeba histolytica*) originate from faeces.^[6] It is more prevalent in the tropics and subtropics than the cooler climate. *Entamoeba histolytica* exists in two forms-vegetative (trophozoite) and cystic forms. Trophozoites dwell in the colon where they multiply and encyst. The cysts are excreted in stool. Ingested cysts release trophozoite which colonizes the large intestine.^[7] The trophozoites are short lived outside the human body; they are not important in the transmission of diseases. Man is the only reservoir of infection. The immediate source of infection is the faeces containing the cysts. Most individuals infected with *Entamoeba histolytica* remains symptom free and are healthy carriers of the parasite.

While visualizing the disease with modern counterpart, it is a common disease in low socio-economic gentry of backward areas. It is more prevalent in developing country like India. Poverty, illiteracy, poor hygienic conditions, over-crowding are the root factors for acquiring the worm manifestations.

This is a small attempt to understand the magnitude of problem where patient of low socio-economic status in Lalit Hari State Ayurvedic Hospital were studied.

MATERIAL AND METHODS

This study was carried out in 75 patients of low socio-economic status in Lalit Hari State Ayurvedic College & Hospital, Pilibhit (U.P.). Out of 75 patients, numbers of children were 40 and adults were 35. Out of 75 patients 50 patients related to low socio-economic group and 25 related to middle income group. There were no patients related to high income group. These patients were selected in such a way

that the patients of backward areas could be included. Patients were classified according to worm infestations. (Table 1)

Table 1: Classification of Patients, according to worm found in stool examination

Sl.No.	Type of Worm	No. of Patients
1.	<i>Ascaris Lumbricoids</i>	50
2.	Hook Worm	10
3.	<i>Entamoeba histolytica</i>	15

Special instructions were given to registration counter of hospital for mentioning area of patient and qualification of patient. After conducting primary investigations and survey, patients were grouped according to age, religion and sex.

Drug review

Kampillaka is one of the herb mentioned in all scriptures of Ayurveda and praised it as a valuable remedy for worm infestation. Kampillaka is pungent in taste (rasa), pungent in the post digestive effect (vipaka) and has hot potency (virya). The powder of its fruit hairs is brick red colour and having the best vermucidal effect. The main content of its chemical composition is Rotlarin.^[8]

Preparation and Administration of drug

Kampillaka churna (powder of fruit hairs) 500 mg filled in capsule form and administered to the patients in the dose of one capsule twice a day with water for one month. After treatment with Kampillaka Churna a pathological finding was recorded.

Laboratory investigations

The Blood examinations, like Hb%, TLC, DLC, Urine examination and stool examinations were carried out.

OBSERVATIONS AND RESULTS

Total 75 patients were studied with the following main complaints which are given as criterion of assessment. Fever, Abnormal complexion, Anorexia, Pain in Abdomen, Vertigo, Itching in anal region, General debility, Diarrhea, Emesis, Discoloration, Heart diseases, Looseness of body.^[9]

The above sign and symptoms were observed in different groups, each patient has got 5 to 6 signs and symptoms. Variability in signs and symptoms depend upon the type of worm involved. The results were incorporated in Table 2, 3, 4, 5 and 6.

DISCUSSION

The present study highlighted that overall prevalence of worm manifestations specially was 66.66% (that is 50 patients out of 75 patients). In this study it was observed that major incidence of worm manifestations were resulted from *Ascaris lumbricoides* (Gandupada Krimi). In our country, it is observed that literate does not mean a person who certainly has courtesies about society. Separate instructions should be delivered to the whole society for maintaining hygiene by health department from time to time. The present study showed unhygienic conditions which was abundant in backward communities that enhance the chances of worm manifestations especially of *Ascaris lumbricoids*. It is also found that chances of worm manifestations are more in children rather than adults because spread are by fingers contaminated with soil or by ingestion of contaminated soil (pica) as usually happens in the case of children playing with soil. There is increased evidence that dust may play an important role in the dissemination of *Ascaris lumbricoids* in arid area.

Table 2: Classification according to socio-economic status

Sl.No.	Socio-economic Classification	Income per month	No. of patients	Percentage
1.	High Class	Above 15000/-	0	0
2.	Middle Class	15000/-	25	33.33%
3.	Lower Class	Between 5000/- to 15000/- Less than 5000/-	50	66.67%

Table 3: Classification of patients according to religion

Sl.No.	Religion	No. of Patients	Percentage
1.	Hindu	40	53.55 %
2.	Muslim	35	46.67 %

Table 4: Classification according to Literacy

Sl.No.	Category	No. of Patients	Percentage
1.	Literate	65	86.67 %
2.	Illiterate	10	13.33 %

Table 5: Classification of patients relieved completely from krimi during the treatment with Kampillaka Churna

Sl. No.	Treatment Time (in days)	Gandupada krimi	Hook Worms	<i>Entamoeba hystolytica</i>
1.	1	00	00	00
2.	8	28	03	08
3.	15	35	05	09
4.	22	39	06	09
5.	29	42	06	10

Table 6: Total percentage of patients relieved from worms (Gandupada, Ankush Mukh & Sashool Krimi) after four weeks of treatment.

Sl. No.	Krimi	No. of patients with Krimi	Patients relieved completely from Krimi	Percentage
1.	Gandupada Krimi	50	42	84%
2.	Ankush mukh	10	6	60%
3.	Sashoola Krimi	50	10	66%

CONCLUSION

The overall prevalence of Gandu-pada krimi manifestations showed highest effect of Kampillaka Churna, as a curative regimen which was observed in most pronounced manner in comparative study with effect on Ankush Mukh Krimi and Sashool Krimi. In different Ayurveda texts, detailed description is available. There is very much need to study the bad effects of Krimi in the human body

and it is also important to eradicate these Krimi by medicine for the betterment of society.

In this study 75 patients were examined in which 50 patients are suffering from Gandupada, 10 from Ankush Mukh Krimi and 15 from Sashool Krimi. After giving Kampillaka Churna to affected patients, the

present study showed that the patients suffering from Gandupada Krimi are much benefitted in comparison to other patients.

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