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Study of *Vidanga* on *Krimi Roga* w.s.r. to Round Worms

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ABSTRACT

Krimi have been considered a major public health problem through out the world (WHO, 1967 Wandan, 1983 McLaren, 1984). In our country this problem is equally significant. It effects the children more frequently than adult (CCRAS 1987). *Krimi* hamper growth and development of a person, create malnutritional condition and decrease immunity thus the effective solution of this problem is necessary. Of all the herbs used in treating worm infestation, *Vidanga* is the best. So, *Vidanga* was selected for the present study. Whole plant of *Embelia ribes* Linn. were used as materials, as whole plants are used as medicine. *Acharya Charaka* describe *Krimiroga* in *Vimanasthana*. In most of patients, who are suffering from worm infestation have an *Vivarnata* (discolouration) on the face. "*Vivarnata*" had been described by *Acharya Charaka* under the *Lakshana* of *Purishaja Krimi* and it has been also described in *Rasavaha Srotodusti Lakshana*. *Krimis* robe the digestive nutritive assets through the intestinal wall, which we are making with high effort. So the deficiency of *Rasa Dhatu* create. According to *Dhatu Poshana Nyaya* if the *Rasa Dhatu* is not sufficient then other *Dhatu* can't form properly and ultimate weak resistance and poor immunity develops and it is one cause of recurrent nature of disease. *Prakriti Vighata* and *Nidana Parivarjana* eradicate *Krimiroga* from the base.

Key words: *Vidanga*, *Embelia ribes*, *Krimi*, Worm infestation, *Krimighna*.

INTRODUCTION

Ayurveda which literally means 'The Science of Life' is one of the most ancient medical sciences of the world. Ayurveda advocates a complete promotive, preventive and curative system of medicine. Ayurveda treats the patient as a whole rather than treating his ailment as separate entity. Ayurveda has stated three *Shashwat Sutras* in which entire Ayurved is described.

These are '*Hetu Sutra*', predisposing factors for the formation of the diseases. Second one is '*Linga Sutra*',

signs and symptoms of the diseases. And the third one is '*Aushada Sutra*', the medicine through which the disease will be cured.^[1]

Among the three, third one is more important because the success of *Chikitsa* entirely depends on medicine without which the physician is totally helpless to treat the patient; and that's why medicine occupies an important position to *Bhishaga* (doctor).

Since long our *Aacharyas* have given proper attention towards the drug and that can be seen in our *Brihtrayi Granthas* in the form of *Mahakashayas* and *Ganas* which was arranged according to the best way in which one can use it in practice easily. This tradition was kept continuous by later on *Nighantu Granthas* and knowledge of *Nighantu*.

The Ayurvedic science has been taking care of mankind since ancient time and there is no doubt that Ayurveda is still potent as it was 5000 years back and it will remain forever due to its *Anadi*, *Ananta*, *Shashwat Sutras*. But the modern medical science is always hanging their concepts with advancement, it

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crossed all the limitations and the modern medical fraternity started to use extracts of medicinal plants for curing of the human ailments. The higher market prices of such drugs lured the Business Magnets and they started to manipulate drugs as well as their manufacturing processes. This greed of the manufacturers adversely affected the public health in general and the adverse reactions of the synthetic drugs added fuel to make it worst than ever before. This whole picture compelled the so called modern and sophisticated man to adopt the Ancient Science, Ayurveda. Its simplicity, promotive, preventive, curative aspect and holistic approach made it to return its aboriginal path. And nowadays Ayurveda is once again the centre of pride, flourishing and is making its position stronger with the passing of time.

In this century the Ayurveda has come back into picture and propagation as tomorrow's medical science; But some discriminations have been made with Ayurveda, the reason spelled behind this is the use of impure and heavy metal containing Ayurvedic drugs. These drugs have been banned by some European countries.^[2] This degradation of drug is not only persecuting Herbo-mineral compounds but also medicinal plants too. If we contemplate ourselves then we may be unable to give clarification regarding the drug and its unreliable therapeutic action. This is the reason for standardization of Ayurvedic drug. Since long we are discussing on standardization and till now discussion is in process but there has been no any fruitful out come. The reason behind it may be that, we have given attention towards the different formulation and single drug uses, their palatability, their attractive packing, expensive labeling and advertising; but the main base of our formulation and single preparation, that is raw material the medicinal plants has been ignored or given less attention towards that. Till today the manufacturers companies as well as Ayurvedic Physicians use raw material available in market.

OBJECTIVE OF THE STUDY

To evaluate the *Krimighna* action of *Vidanga Churna* and also study the complication if any occurs during the course of treatment.

MATERIALS AND METHODS

Criteria for selection of patients

Inclusion Criteria

The patients attending the O.P.D. and I.P.D. of Kayachikitsa and Research Unit of Govt. Ayurvedic Hospital, Patna having classical symptomatology of *Krimi roga*. Careful elucidation and evaluation of medical history of patients. The patients having classical symptomatology of *Krimiroga* and present ova / cyst / worm in stool examination. Detailed physical and clinical examination on the basis of proforma specially prepared for this purpose. The patient under 70 years irrespective of caste, religion, sex, habits, Socioeconomic status and those who fulfill the diagnosis were selected for the study.

Exclusion Criteria

Present study was carried out on *Kosthagata Krimi* i.e. *Purishaja* and *Kaphaja Krimi*, so if patient, who have complaints of excessive skin disease or *Raktadusti* (severe) and any other severe illness were excluded from the study. Pregnant women, Patients above 70 years, Patients of other worm infestation (other than Round Worm) are excluded. This study was focused on patients of Round worms because there are many types of worms present in human beings.

Laboratory Investigation

The following laboratory investigation were under taken in each case just before beginning of drug trial and after completion of the study.

- Stool - Routine and microscopic examination
- Urine - Routine and microscopic examination
- Blood - Hb%, TLC, DLC, ESR & PCV.

Above mentioned all pathological investigation were done in hospital attached laboratory.

Study design - Single arm clinical study.

Patients were subjected to medication with the drug under trial.

Drug : *Vidanga Beeja Churna*

- Dose - according to age.

- Below 12 year patient - 1.5gm BD.
- 12 to 70 year patient - 3gm BD
- Route of administration - oral
- Duration of therapy - 2weeks
- Anupana - Guda

Diet advised

They were advised to follow the dietary restriction, like avoid taking of Milk, Guda, Dadhi, Oil, Masha, Tila, etc. excessive in quantity.

Method of Study

- Selection of the patient on the base of complaints and stool report.
- Routine laboratory investigation and sign and symptoms scoring have been carried out before and after treatment.
- Proper administration of the drug should be done perfectly during treatment time (2 weeks).
- Trial drugs were assessed on the basis of clinical observation in course of the treatment, especially the sign and symptoms beside the laboratory investigation before and after the course of treatment.
- The result were assessed and comparison of both drugs were done.

Criteria for Assessment

- Cured** : This was decided on the basis of following two points. Complete relief in the initial chief complaints of the patient along with the positive improvement (100% relief in signs and symptoms). And complete microscopic absence of ova / cyst. Stool confirmed by stool Examination by three subsequent stool test.
- Markedly relief** : More than 60% relief in sign and symptoms.
- Moderately improvement** : 30-59% relief in sign and symptoms.
- Mild improvement** : below - 30% relief in sign and symptoms.

- No relief** : This was the group of patients in our series which did not report either symptomatic relief in their basic complain and not have negative stool examination report after treatment.

STATISTICAL ANALYSIS

The information gathered on the basis of observation was subjected to statistical analysis and the obtained results were thus interpreted as,

- $P > 0.05$ - Insignificant
- $P < 0.05$ - Improvement
- $P < 0.01$ - Significant Improvement
- $P < 0.001$ - Highly Significant

OBSERVATIONS AND RESULTS

Table 1: Number of patients registered.

Drug administered	No. of patients		
	Total Registered	Completed	Dropped Out
Vidanga Churna	20	19	01

Out of 20 patients, 19 patients completed the whole therapy. One Patient from left the therapy in between the trial. (table 1)

Table 2: Effect of Vidanga Churna on cardinal sign and symptom of Krimi.

Cardinal Symptom s	N	Mean score		Dif f	% Reli ef	SD	SE	t	p
		BT	AT						
Bhaktdev esha	5	1.50	0.43	1.07	71.43	0.47	0.13	8.45	<0.001
Vivarnata	7	1.77	0.65	1.12	71.23	0.47	0.13	8.45	<0.001
Gudakandu	4	2.25	1.16	0.83	71.66	0.40	0.16	5.5	<0.001

<i>Purishabheda</i>	4	2.6	0.8	1.8	69.23	0.83	0.37	4.81	>0.01
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The mean initial symptoms score for *Bhaktdwasha* was 1.50 which is reduced to 0.43 after the treatment. Thus *Bhaktdwasha* was reduced to 71.43 % which was highly significant ($P<0.001$). For the symptoms of *Vivarnata*, the mean score before treatment was 1.77 which reduced to 0.65 after the treatment. This relief was 71.23 % which was highly significant ($P<0.001$). For the symptoms of *Gudakandu*, the mean score before treatment was 2.0 which reduced to 1.16 after the treatment. This relief was 71.66 % which was highly significant ($P<0.01$). For the symptoms of *Purishabheda*, the mean score before treatment was 2.6 which reduced to 0.8 after the treatment. This relief was 69.23 % which shows statistical improvement ($P<0.01$). (table 2)

Table 3: Effect of Vidanga Churna on general sign and symptom of Krimi.

General Symptom s	N	Mean Score		Diff	% Relief	SD	SE	t	p
		BT	AT						
Loss of Appetite	6	2.33	1	1.33	57.14	0.81	0.33	4	>0.01
Abdominal pain	10	2.12	0.87	1.25	47.05	0.53	0.18	5.29	>0.01
Itching in Anal Region	7	2.25	0.75	1.5	66.66	0.57	0.28	5.19	<0.05
Nausea	4	1.66	0.33	1.33	80	0.57	0.33	4	<0.01
Discolouration of skin	2	2	0.5	1.5	75	0.57	0.28	5.19	<0.05
Anorexia	2	2	0.5	1.5	75	0.70	0.5	3	>0.05
Anaemia and Pale Face	9	2	0.25	1.75	87.5	0.95	0.47	3.65	<0.05

The mean initial symptoms score for Loss of Appetite was 2.33 which reduced to 1.0 after the treatment. Thus it was reduced to 57.14 % which was significant ($P<0.01$). For the symptoms of Abdominal pain, the mean score before treatment was 2.12 which reduced to 0.87 after the treatment. This relief was 47 % which was significant ($P<0.01$). For the symptoms of Itching in anal Region, the mean score before treatment was 2.25 which reduced to 0.75 after the treatment. This relief was 66.66 % which was moderately significant ($P<0.05$). For the symptoms of Nausea, the mean score before treatment was 1.66 which reduced to 0.33 after the treatment. This relief was 80% which was highly significant ($P<0.001$). The symptoms like Discolouration of skin was relieved by 75% which was Significant. And Anorexia was relieved by 75% ($P>0.05$), Anaemia and Pale face reduced by 87.5% ($P<0.001$). (table 3)

Table 4: Effect of Vidanga Churna on Haematological parameters.

Haematological Test	Mean Score		Diff	% Relief	SD	SE	t	p
	BT	AT						
Hb%	13.5	14.8	1.3	9.3	1.44	0.33	0.33	<0.05
T.L.C.	8880	9093.33	213.33	2.35	1963.27	506.91	0.42	>0.01
Neutrophil	63.5	61.9	1.58	2.5	3.08	0.89	1.77	>0.05
Lymphocytes	52.26	50.21	2.05	3.93	11.70	2.68	0.76	<0.05
Eosinophils	7.46	5.2	2.26	30.36	4.26	1.10	2.05	<0.01
Monocytes	1.08	0.72	0.36	34.00	0.68	0.16	2.35	>0.05
E.S.R.	9.11	10.22	1.11	11.20	4.70	1.57	0.71	<0.05
n=19								

The mean haemoglobin percentage increase from 13.5 gm% to 14.8 gm% which was statistically significant ($P < 0.05$). Initial score in the total leukocyte count was 8880 which was decreased to 9093.33 was moderately significant ($P > 0.01$). There was an decreased observed in the mean neutrophil form 63.5 to 61.9 which was insignificant ($P > 0.05$). The initial mean score of lymphocytes was 52.26 which was decreased to 50.21 which was statistically significant ($P < 0.05$). The mean eosinophil count was decrease from 7.46 to 5.2 which was statistically significant ($P < 0.01$) and monocyte decrease from 1.08 to 0.72 was statistically significant ($P < 0.05$). The ESR decreased from mean score of 9.11 to 10.22 which was statistically significant ($P < 0.05$).

Table 5: Effect of Vidanga Churna on Intestinal parasite based on stool examination.

Intestinal parasite	Mean score		Dif f	% Relief	SD	SE	t	p
	BT	AT						
Ascaris Lumbricoid e	2.3	1.3	1	49.47	0.47	0.14	6.70	<0.01
n=19								

The Mean score of Ascaris lumbricoides 2.3 before the treatment which was reduced to 1.3. Percentage relief is 49.47% which is significant. ($P < 0.01$).

DISCUSSION

In the present study, eradication of the *Krimi* is main aim, So *Vidanga* was selected for this study. By going through the *Samprapti* of *Krimiroga* it became evident that the *Kapha Dosha* plays an important role in it. It is a *Kapha* predominant *Vyadhi*, with the involvement of *Vata* and *Dusya* involved are *Rasa*, *Annarsa*, *Purisha* and *Rakta*. The *Srotodusti* "Sanga" is seen here. Considering all these, a drug which opposes the *Kapha* and *Ama* does *Shodhana* of *Ruddha Srotas* and corrects the status of *Agni* should be ideally prescribed to cure the *Krimi Roga*.

Vidanga has *Rasa Katu, Tikta, Laghu, Ruksha, Teekshana Guna, Ushna Virya* and *Katu Vipaka*.^[3] *Katu Rasa* does *Deepana, Pachana, Kaphahara*. *Katu Rasa* is mentioned as a *Krimighna* also.^[4] The *Ushna Virya* of the drug again help in *Agni Pradeepana*, correction of *Dushta Kapha* and *Ama*. It also acts as *Kaphvatahara*. The presence of *Katu Vipaka* and *Katu Rasa* also helps in *Srotoshodhan*. Thus in total the drug stimulates the *Agni*, relieves *Agnimandya*, reduces the *Ama* formation and thus relieves *Srotorodha*. All are opposite with the *Guna* of *Kapha* and thus works as *Kapha Vata Samaka*. *Katu Rasa* is also mentioned by *Acharya Charaka* in *Sutrasthana 26* as *Krimin Hinasti*. *Vidanga* has *Krimighna, Kushthghna, Deepana, Pachana, Anulomana, Shirovirechana*.^[5] *Vidanga* has anthelmintic, astringent, carminative, alternative and stimulant action.^[6]

CONCLUSION

Having analysed the result on statistical parameters, we can conclude that *Vidanga* is highly effective for the treatment of *Krimi* (intestinal parasite especially round worms). The drug is easily available so helpful in the treatment of *Krimi*. There was no side effect observed in patients registered and So it is free from various drug hazards.

REFERENCES

1. Vaidya YT, editor. Charaka Samhita by Agnivesha, Vimana Sthana; Dirghajiwitiya Adhyayam: Chapter 1, Verse 10. Varanasi: Chaukhambha Prakashan, Reprint 2009; p.29.
2. Sharma P.C., Yelne M.B., Dennis T.J. Database on Medicinal plants used in Ayurved Vol. I - VIII ; CCRAS, Dept. of ISM & H, Ministry of Health and Family Welfare (Govt. of India);2002.
3. Sushruta: Sushruta Samhita, with Nibandha Sangraha Teeka by Dalhana, Published by Chaukhambha Surbaharati Prakashan, Varanasi, Edition Reprint Sutra Sthan 38/24-25, 2013;p.298.
4. Laboratory Identification of Parasites of Public Health Concern. Atlanta: Center for Disease Control & Prevention, USA. Pathogenic factor in Ascaris" Gurges

- R. J. Trop Medicine and Hyg. CDC (2010). DPDx: 37, 209-214, 1934
5. Vaidya YT, editor. Charaka Samhita by Agnivesha, Vimana Sthana; Vyadharupiyam Adhyayam: Chapter 7, Verse 10. Varanasi: Chaukhambha Prakashan, Reprint 2009; p.258..
6. Prakash L. Hegade, Harini A. A Text Book Of Dravyaguna Vigyana. Revised edition, Choukhambha Sanskrit Sansthan, 2016;p.32.

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