

TREATMENT OF UDARAJA KRIMI

with

Prakriti Vighatakara Regimen **IN CHILDREN**



THESIS
SUBMITTED FOR THE DEGREE OF
DOCTOR OF MEDICINE-AYURVEDA
(KAUMARABHRITYA)

Co-supervised by

Dr. (Mrs.) D. K. Agrawal

D.C.H., M.D., M.A.M.S.

READER IN ENVIRONMENTAL RURAL CHILD HEALTH
DEPARTMENT OF PAEDIATRICS

Supervised by

Dr. Chandan Chaturvedi

A.B.M.S., Ph.D.

READER, KAUMARABHRITYA,
DEPARTMENT OF PRASUTI TANTRA

FACULTY OF AYURVEDA
INSTITUTE OF MEDICAL SCIENCES
BANARAS HINDU UNIVERSITY
VARANASI, INDIA

December 1987

A. P. G. Amarasinghe

Summary & Conclusion

specific helminthiasis on the basis of specific morphological characters, habitats, etiological factors and signs and symptoms can be correlated with Mahaguna/Gandhaka Krimi.

Leishmaniasis. Amoebiasis can be correlated with Krimi. The menace of helminthiasis is great in developing as well as under-developed countries. The infestation of moderate to heavy intensity cause nutritional deficiencies and diseases directly through loss of protein, blood and nutrient by parasite and indirectly through gastrointestinal disturbances such as abdominal pain, nausea, vomiting, diarrhoea and anorexia, leading to malabsorption syndrome and malnutrition. Moreover, the malnourishment is frequently aggravated by inadequate intake of food and ingestion of imbalance diet due to ignorance, dietary habits, beliefs and taboos along with various socio-economic factors. The the measures as such related to prevention and cure of worm infestation is needed even today.

The word 'Krimi' mentioned in Ayurvedic literature refers to all the bacteria, virus and parasites described in modern medical literature. The word 'Krimi' in the present thesis has been used for various parasites of gastrointestinal tract and referred as Udaraja Krimi. In Ayurvedic literature 20 Krimis have been described and on the basis of their habitats they have been further classified into four i.e. Malaja, Raktaja, Shleshmaja and Pureeshaja. Sushruta Samhita has described internal 20 Krimis only. Out of them Shleshmaja and Pureeshaja Krimis can be termed as Udaraja Krimi as they stay in Amashaya and Pakwashaya respectively.

Ascaris lumbricoides on the basis of specific morphological characters, habitate, etiological factors and signs and symptoms can be simulated with Mahaguda/Gandupada Krimis. Similarly *Enterobius vermicularis* can be correlated with Laliha/Ajwa. *Ancylostoma duodenale* can be correlated with Hridayachara/Hridayada/Matrah. While describing the methods of prevention and cure, Ayurvedic texts have described 3 methods i.e. Apakarsana, prakriti Vighata and Nidana pariverjana. The methods in the present study has been used in prakriti Vighata which means creating such conditions in the gastrointestinal tract that growth and development of Krimis are stopped.

prakriti Vighata regimen has two aspects, i.e. Immediate as well as Sustained. Immediate prakriti Vighata leads to removal or death of Krimi whereas sustained method refers to regular use of Krimighna Dravyas at short intervals thus to use them mixed with food so that Krimi can not even grow at the site of infestation in gastrointestinal tract. These Ayurvedic drugs have mainly Tikta, Kashaya Rasa and Ushna Veerya which are antagonist to Kapha. Thus cause non-congenial environment for Krimis. Some drugs have specific wormicidal or vermifuge activities ultimately eliminate Krimis by creating physiological crisis.

Kuberaksadi Yoga used in the present study does not find any mention in Ayurvedic literature but majority of its ingredients have Krimighna properties and also being used in Sri Lanka by Ayurvedic physicians. Acute and toxicity study

conducted prior to clinical trial to reveal its any toxic effects.

The sample for the study was collected from the primary school situated in semi-rural settings of Varanasi. Total 105 children having positive stool for *Enterobius vermicularis* or *Ascaris lumbricoides* or *Ancylostoma duodenale* were subjected to the treatment. All these children were randomly divided into two groups on the basis of treatment. Group A received Kuberaksadi Yoga in the doses 200 mg/kg body weight for 10 days and Group B got Pyrantel pamoate in the dose of 10 mg/kg body weight as single dose for one day.

Findings of the present study reveal that infestation of *Enterobius vermicularis*, *Ascaris lumbricoides* and *Ancylostoma duodenale* is more in the age group of 9-10 years. The youngest child in the study is of 5 years. *Enterobius vermicularis* infestation is more in females (59.54%) and similar prevalence in case of *Ascaris lumbricoides* but *Ancylostomiasis* is comparatively more (68.00%) in males. Status of personal hygiene, Environmental sanitation and socio-economic status reveal that these factors if deteriorated help in infestation of *Enterobius vermicularis* and *Ascaris lumbricoides*. Incidence of pain in abdomen, changed bowel habits, change in appetite, pallor, itching of anus, progressive weakness, bed wetting, dry cough and grinding of teeth are almost common sign and symptoms in all the above three infestations. Whereas itching of anus and bed wetting; pain in abdomen and changed bowel habits; pallor and

progressive weakness are exclusively signs and symptoms in

Enterobius vermicularis, *Ascaris lumbricoides* and *Ancylostoma duodenale* respectively.

These parameters have been found altered significantly in both the groups

Enterobiasis :

Pre-treatment total TRBC count, Hb gm% and eosinophil count have been found very marginally influenced in the cases of Enterobiasis in the present study. Whereas mean ova count ranges between 2000-5000/gm of stools in both the groups. Very significant reduction in ova count has been noticed after the treatment in relation to this worm in both the groups A & B. Symptomatic

relief is also evident with the administration of both the recipes. Post treatment data reveals, cure rate of 84.60% and 90.00% in the cases treated with Kuberakssadi Yoga and pyrantel pamoate respectively, which despite high cure rate of these drugs in the cases of infestation with *Enterobius vermicularis*, is little

Ascariasis : *Ancylostomiasis* (cure rate being 5.00%).

Insignificant pre and post treatment levels of TRBC and Hb gm% have been noticed in the present study, but mean eosinophil count has been reduced to normal limits after the treatment. Reduction in mean ova count and symptomatic relief is very significant in group B as compared to group A. Final assessment of the treatment show 50.00% and 95.00% cure rate with Kuberakssadi Yoga and Pyrantel pamoate respectively in the cases infested with *Ascaris lumbricoides*.

change the environment congenial for the existence of Kuberakssadi

Ancylostomiasis ; *Enterobius vermicularis*. All the ingredients of

pre-treatment total RBC count, Hb gm% and eosinophil count have been found altered significantly in both the groups whereas post-treatment assessment show better gains in group B. Very significant improvement in signs and symptoms and reduction of ova count is evident in group B. As results mainly based on negative stool for *Ancylostoma duodenale*, Cure rate of in group A and 88.00% in group B i.e. with Kuberaksadi Yoga and Pyrantel pamoate respectively is noticeable in Ancylostomiasis.

Drugwise assessment of efficacy in respect to Kuberaksadi Yoga reveals that this drug is very effective in Enterobiasis (cure rate being 84.62%). Ayurvedic recipe is also effective in Ascariasis but not to the extent as in Enterobiasis (cure rate being 50.00%). Kuberaksadi Yoga is little effective in Ancylostomiasis (cure rate being 8.00%).

The control drug pyrantel pamoate is almost equally effective in Enterobiasis, Ascariasis as Ancylostomiasis as the cure rate being 90.00% in *Enterobius vermicularis*, 95.00% in *Ascaris lumbricoides* and 88.00% in *Ancylostoma duodenale*.

Considering pharmacodynamic properties of Kuberaksadi Yoga, the ingredients contain Katu, Tikta Rasae which are antagonist to Aama and Shleshma. Thus suppress vitiated Kapha and minimise Aama in gastrointestinal tract which as a result change the environment congenial for the existance of Kaphaja

पुस्तक
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CONCLUSIONS

Krimi through prakriti Vighata. All the ingredients of Kubaraksedi Yoga possess Krimighna prabhava also. So, the compound may be acting through specific property of the drugs.

Pyrantel pamoate causes permanent spastics paralysis of the worm and worms are dislodged automatically from the site.

(3) Prakriti Vighata can be immediate (instantaneous)

CONCLUSIONS

- (1) Kaphaja and pureeshaja Krimis, present in gastrointestinal tract, can be termed as Udaraja Krimis on the basis of references available in Ayurvedic classics.
- (2) prakriti Vighata conotes creating such conditions in the gastrointestinal tract that growth and development of worms are put to standstill.
- (3) prakriti Vighata can be immediate (instant wormicidal or Wormifuge actions) and sustained which may be referred to ingestion of the medicaments having Tikta, Kashaya Rasa and Ushna Veerya which antagonises Kapha thus providing unsuitable environment for the Krimis.
- (4) Enterobius vermicularis can be simulated with Laliha/Ajwa (pureeshaja Krimi) and Ascaris lumbricoides can be correlated with Mahaguda (Kaphaja Krimi) and Gandupada (Pureeshaja Krimi) whereas Ancylostoma duodenale can be equated with Hridaya/Hridayachara/Matrah (Kaphaja Krimi) on the basis of Ayurvedic texts.
- (5) Kuberaksadi Yoga is a potent anthelmintic recipe against Enterobius vermicularis and less effective in respect to Ascaris lumbricoides whereas least effective in Ancylostoma duodenale infestation. Symptomatic relief is much marked with Kuberaksadi Yoga.
- (6) Pyrantel-pamoate is equally effective in all the three worms i.e. Enterobius vermicularis, Ascaris lumbricoides and Ancylostoma duodenale.

(7) The compound Kuberaksadi-Yoga induces relief by virtue of specific Rasa, Vipaka and Veerya of its ingredients which cause Prakriti Vighata i.e. the bowel environment is turned into non-congenial for the worms.

(8) Symptomatic relief in case of Kuberaksadi Yoga may be due to positive effects on pachakegni through pharmacodynamic properties of its ingredients.

(9) prabhava (specific action) i.e. Krimighna action plays an important role due to selective action of Kuberaksadi Yoga.

Bibliography

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