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AYURVEDIC MANAGEMENT OF PUREESHAJA KRIMI (*ENTEROBIUS VERMICULARIS*) IN CHILDREN: CASE REPORT

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ABSTRACT

Pin worms are particularly common in pre-school and kindergarten children, with prevalence rates in this age group having reported as high as 61% in India. As per Ayurvedic literature, *Pureeshaja krimi* can be correlated with *Enterobius vermicularis* (pin worms), as itching in the anal region (*gudakandu*), impaired appetite (*agnimandhya*), pain in the abdomen (*udarashoola*), constipation (*vibanda*), diarrahoea (*vidbheda*), discolouration (*vaivarnyatha*) are the clinical features of *pureeshaja krimi* which are similar to the clinical features of *Enterobius vermicularis* infestation. A 5 year old male child attended the out-patient department of Kaumarabhritya, Shri Dharmasthala Manjunatheshwara College of Ayurveda and Hospital, Hassan district, Karnataka state, India with complaints of recurrent anal itching and presence of small white worms in stool since last six months. The present article is discussing about the Ayurveda line of management in treating Pureeshaja krimi (*Enterobius vermicularis*) in children.

Keywords: Pureeshaja krimi, *Enterobius vermicularis*, *gudakandu*, *udarashoola*, *vibanda*, *vidbheda*

INTRODUCTION

Worm infestations in children have been responsible for worsening the growth and development in millions of children around the world **[1]**. Worm infestations in children are also found to have deleterious effect on nutrition status, mental status and intelligence leading to poor social and scholastic performance when compared with healthy peers **[2]**. Even after various health initiatives against worm infestation in children by government and non-governmental organizations, overall scenario remains the same as per the recent data **[3]**. Pin worms are particularly common in pre-school and kindergarten children, with prevalence rates in this age group having reported as high as 61% in India **[4]**. As per Ayurvedic literature, *Pureeshaja krimi* can be correlated with *Enterobius vermicularis* (pin worms), as itching in the anal region (*gudakandu*), impaired appetite (*agnimandhya*), pain in the abdomen (*udarashoola*), constipation (*vibanda*), diarrahoea (*vidbheda*), discolouration (*vaivarnyatha*) are the clinical features of *pureeshaja krimi* which are similar to the clinical features of *Enterobius vermicularis* infestation **[5]**.

In the present case report, formulation containing drugs like *Haridra, Bhringaraja* and *Karpura* has been chosen from the PillaiyarPadalam (ancient textbook of Balachikitsa practiced in Kerala) and it is converted into tablet form and named as Nishabhringa Tablet is used **[6]**. This formulation has been widely practiced in Kerala since ages with promising results and no reported adverse events.

CASE REPORT

A 5 year old male child attended the out-patient department of Kaumarabhritya, Shri Dharmasthala Manjunatheshwara College of Ayurveda and Hospital, Hassan district, Karnataka state, India with complaints of recurrent anal itching and presence of small white worms in stool since last six months. He had associated features of abdominal pain and loss of appetite since six months. The itching aggravated during night time and on consumption of sweet and sour items. The patient had undertaken modern medications for the above complaints but didn't have satisfactory relief. The symptoms reappeared after one week of medications. The patient had a history of regular intake of junk foods, chocolates and fast foods. For the past two months, patient had complaints of recurrent anal itching and presence of white worms in stool daily during night time associated with abdominal pain and loss of appetite. On abdominal examination, abdominal distention was present and on examination of peri anal region, redness and excoriation were seen over the area. The patient was diagnosed with Pin worm / *Enterobius Vermicularis*

(EV) infestation by the presence of cysts of *Enterobius Vermicularis* on Scotch tape test **[7]**.

The patient was admitted and treated in the in-patient department with Nishabhringa tablet (500mg) twice daily before food along with jaggery and Matrabasti (30 ml) with sarshapa taila once daily for seven days. After discharge, Nishabhringa tablet was continued for seven more days. After 14 days of treatment, Scotch tape test was repeated and patient was assessed for changes in clinical symptoms **(Figure 1 to 4)**. In follow up, patient was re-assessed for the recurrence of symptoms of pinworm infestation after 30 days of completion of treatment.

Fig 1: Microscopic picture of stool samples showing cysts of *E. Vermicularis* (BT)

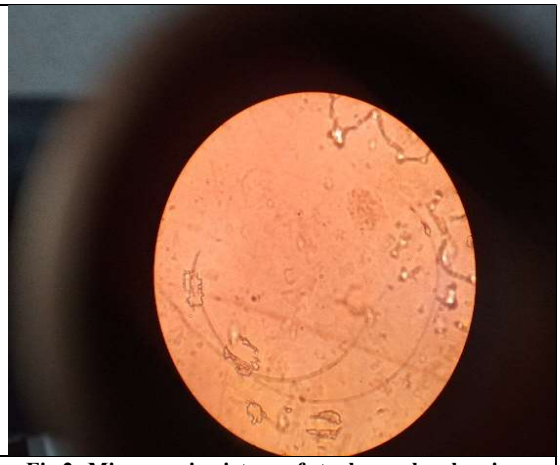
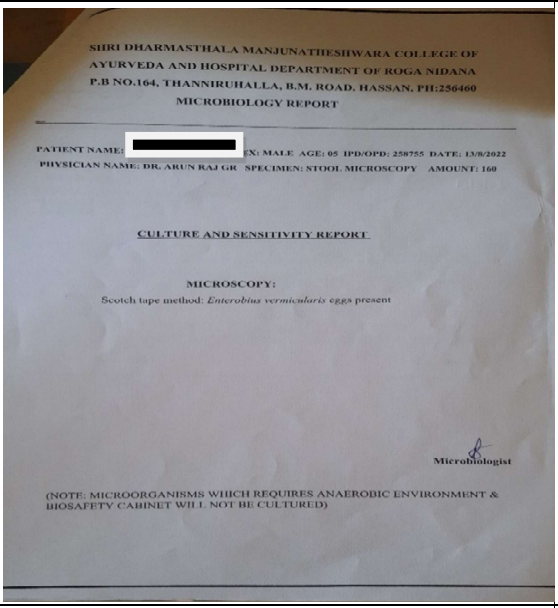


Fig 2: Microscopic picture of stool samples showing absence of *E. Vermicularis* cysts (AT)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AYURVEDA AND HOSPITAL DEPARTMENT OF ROGA NIDANA
P.B NO.164, THANNIRUHALLA, B.M. ROAD, HASSAN. PH:256460
MICROBIOLOGY REPORT

PATIENT NAME: [redacted] EX: MALE AGE: 05 IPD/OPD: 258755 DATE: 13/8/2022
PHYSICIAN NAME: DR. ARUN RAJ GR SPECIMEN: STOOL MICROSCOPY AMOUNT: 160

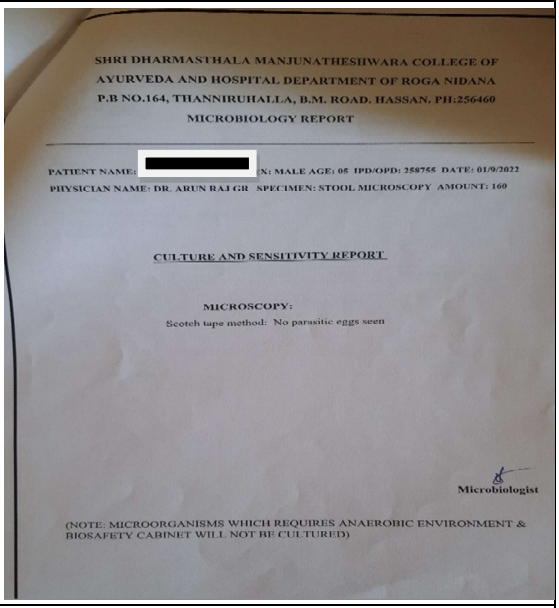
CULTURE AND SENSITIVITY REPORT

MICROSCOPY:
Scotch tape method: *Enterobius vermicularis* eggs present

Microbiologist

(NOTE: MICROORGANISMS WHICH REQUIRES ANAEROBIC ENVIRONMENT & BIOSAFETY CABINET WILL NOT BE CULTURED)

Fig 3: Microscopy report of stool sample (BT)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P.B NO.164, THANNIRUHALLA, B.M. ROAD, HASSAN. PH:256460
MICROBIOLOGY REPORT

PATIENT NAME: [redacted] N: MALE AGE: 05 IPD/OPD: 258755 DATE: 01/9/2022
PHYSICIAN NAME: DR. ARUN RAJ GR SPECIMEN: STOOL MICROSCOPY AMOUNT: 160

CULTURE AND SENSITIVITY REPORT

MICROSCOPY:
Scotch tape method: No parasitic eggs seen

Microbiologist

(NOTE: MICROORGANISMS WHICH REQUIRES ANAEROBIC ENVIRONMENT & BIOSAFETY CABINET WILL NOT BE CULTURED)

Fig 4: Microscopy report of stool sample (AT)

DISCUSSION

Nishabhringa tablet comprises of Nisha, Bhringaraja and Karpura having properties like tiktha, katu, ruksha, laghu tikshna gunas and ushnavirya **[8-14]**. Due to these properties, it act as a Kaphaghna dravya (ingredient which reduces Kapha Dosha). Sarshapa taila is katu rasa pradhana dravya, and possesses teekshnaguna. Katu rasa is predominant of agni mahabhuta which disintegrates kapha dosha (Kaphavilayana) which is wormicidal, alleviates krimi multiplying factors (i.e., kaphahara) thus sampraptivighatana is attained.

According to principles of Ayurveda, predominance of Kapha Dosha, supports a favorable environment for the reproduction, growth and propagation of worms in the human body. Any ingredient that reduces Kapha Dosha, makes the environment unfriendly for the survival of worms. This will cause the worms to die out. This action will lead to reduction of the symptoms of E. vermicularis infestation and to make stools free of ova. Based on this chain of actions, it can be proposed that Nishabhringa tablet and Sarshapataila acts as a reducer of Kapha Dosha which in turn reduces the growth and reproduction of worms including *E. vermicularis.*

In the present study, before the treatment patient was subjected to scotch tape test and presence of ova of *Enterobius vermicularis* was noticed. Then after seven days of Matrabasti with Sarshapataila and fourteen days of oral intake of Nishabhringa tablet, scotch tape test was repeated. The absence of ova of *Enterobius vermicularis* was seen and patient got relief in all his complaints (itching in the anal region (guda kandu), impaired appetite (agnimandhya), pain in the abdomen (udara shoola), constipation (vibanda) and diarrahoea (vidbheda)). After 30 days of completion of treatment, follow up was done and there were no recurrence of any of the complaints.

CONCLUSION

By observing the above treated case and pharmacological properties, the combined action of Nishabhringa tablet and Matrabasti with sarshapa taila have proved to be effective in treating Pureeshaja krimi (*Enterobius vermicularis*) in children.

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