



A LITERATURE REVIEW ON KRIMIROGA IN CHILDREN

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ABSTRACT: The term “Krimi” is frequently used from the Vedic period to Samhita period in different ancient classics. The term krimi includes all pathogenic and nonpathogenic organisms covering wide range of infection and infestation. Krimiroga(worm infection) is one of the most common disease in pediatric population especially in developing countries due to poor hygiene. Krimi word has wide meaning. All the organism which are dependent for food and shelter upon the human body can come under the title of Krimi. Our Acharyas described different classification of Krimi. All the micro organism, bacteria, virus, protozoa and helminths, which totally depend upon human body. Acharya Charaka has described three treatment of Krimiroga are as follows Apakarshana (Removal of visible worm from the body), Prakritivighata (to create unfavorable environment by means of diet and medicine) and Nidanparivarjana a (Avoid etiological factor). Apakarshana means to scratch the Dosha, Mala and Krimi Sanghata forcefully. It contains most vigorous Shamshodhan viz. Virechana, Vamana, Shirovirechana and Asthapana. Prakriti Vighata means destruction of susceptible environment of Krimi. Nidan Parivarjana means to avoid the causative factor.. After Samsodhan if any ova and cyst remain in Kostha than this Prakriti Vighata and Nidana Parivarjana suppress the growth of Krimi and prevent recurrence of Krimiroga. Hence this present article is about ayurvedic perspectives of krimiroga.

KEYWORDS: Krimi, Worm, Krimiroga, Ayurveda, Helminthiasis, Pureeshaja, Krimi.

INTRODUCTION:

Krimiroga is one of the most common disease in paediatric population. Krimi word has wide meaning. All the organism which are dependent for food and shelter upon the human body can come under the title of Krimi. Our Acharyas described different classification of Krimi. This classification concludes all the micro organism, bacteria, virus, protozoa and helminths, which totally depend upon human body. Udara Krimis (Intestinal parasites) have been considered a major public health problem throughout the world⁽¹⁾

In our country worm infection is most important problem because it adversely affects the nutritional status of a person but neglected due to poor socio-economic status. It affects the children more frequently than adults

(CCRAS, 1987). Number of incidences runs into millions and in tropical countries like ours, percentage of affected cases is estimated to exceed 80% yet surprisingly, large number of cases affected with Krimi Roga are asymptomatic. Its eradication becomes difficult as people continue to harbour Krimis without seeking medical help. That is why it seems that Charaka, in the section which precedes Krimi Roga, has warned that a person afflicted with a major disease may appear as if suffering from a mild malady.^[2]

Children cannot take their care as its own so that there are so many epidemic diseases, which can interrupt their growth and development. Krimi Roga is one of them. India is a developing country where thousands of children suffer from epidemics due to atmosphere, social problems and economic problems.

Krimis produce a variety of symptoms. It is rather easy, when encountered with symptoms related to Mahasrotas, to have stools investigated and have Krimi identified as a causative factor. An average child doing poor at school, harmful antibiotics are poured in unnecessarily to the child suffering from cough and fever and the Krimis are the unsuspected and undetected which are responsible for exposing the victims to a large number of diseases by robbing them of their hard-earned nutrients, thus lowering their body defense. Hookworm, suck 0.4 ml of blood per worm per day, there by cause anemia and make them physically weak, remain unhealthy throughout their life span.

Acharya Charaka has beautifully described threefold Chikitsa for Krimi Roga viz. Apakarshana, Prakritivighata and Nidan Parivarjana. Remarkably, in Apakarshana of Krimis, most vigorous Samshodhana viz. Virechana, Vamana, Shirovirechana and Asthapana all of the four Karmas have been advocated. But Samshodhana in children is not desirable, So, this article reviews the Krimiroga and the possible treatment modality that can be incorporated in children.

CLASSIFICATION ⁽³⁾

According to effect on body

1. Sahaja Krimi: Those Krimi which do not cause any changes to human physiology, are termed as Sahaja Krimi. Some of them are found to be useful as Lactobacillus etc. Such types of Krimi are cited in buccal cavity of mouth, alimentary canal, vaginal canal etc.

2. Vaikarika Krimi: In general psychology of human being that Krimi are harmful to human body. Exactly this psyche is due to vaikarika type of Krimi. Means these are harmful Krimi. According to Charka they are divided in two types as Bahya and Abhyantara.

According to site of the body

Bahya Krimi (External worms)

These worms originated externally, manly occurs in the hairy parts of the body. They may be considered responsible for the urticaria, furunculosis and lymphadenitis.

Example Liksha & Yuka

Abhyantara Krimi (Internal worms)

This type of infection may occur due to the production of Ama, excessive consumption of sweet and sour diet & virudhh ahaar.

Example- Antrada, Udumbar

According to source of origin ⁽⁴⁾

- a. **Malaja** – originated from bahya mala like sweat
- b. **Raktaja** – originated from blood vessels (Dhamani)
- c. **Kaphaja** – originated from Amashaya (Stomach)
- d. **Purishaja** - originated from Pakvashaya (Large Intestine)

Classification of Krimi with subtypes

Sr no	Name of acharya	Bahya krimi	Abhyantar krimi				total
			Kaphaj	Purishaj	Raktaj	Total	
1	Charak ⁽⁵⁾	2	7	5	6	18	20
2	Vagbhat ⁽⁶⁾	2	7	5	6	18	20
3	Sushrut ⁽⁷⁾	-	6	7	7	20	20
4	Bhel ⁽⁸⁾	-	-	-	-	-	20
5	Harit ⁽⁹⁾	7	-	-	-	6	13
6	Sharangdhara ⁽¹⁰⁾	2	7	5	6	18	22
7	Madhavkar ⁽¹¹⁾	2	7	5	6	18	20
8	Bhavamishra ⁽¹²⁾	2	7	5	6	18	20

NIDAN PANCHAK**Samanya nidan –****Samaya Nidana of Bahya Krimi:**

The external Krimis in the opinion of Charaka, Vagbhatta, and Madhavakara and Bhavaprakasha are caused due to unhygienic and dirty habits (Mrijaverjanam). This is described as cause of Malaja Krimis. Harita refers to its origin from sweat, dryness (of skin or body) and worry (Yuka and Liksha).

Samanya nidana of Abhyantara Krimi(13)**Physical Factors**

1. Avyayama
2. Diwaswapna

Diet articles

1. Godhuma
2. Masha
3. Vidala
4. Pishtanna
5. Prithuka
6. Bisa
7. Shaluka
8. Kasheruka
9. Patrashaka
10. Kshira
11. Dadhi
12. Guda
13. Sura
14. Sukta
15. Palala
16. Pishita
17. Anupamamsa
18. Ikshu

Taste & quality of diet

1. Madhura
2. Amla
3. Ruksha
4. Guru
5. Pichhila
6. Drava
7. Shitala
8. Tapodaka

Diet habits

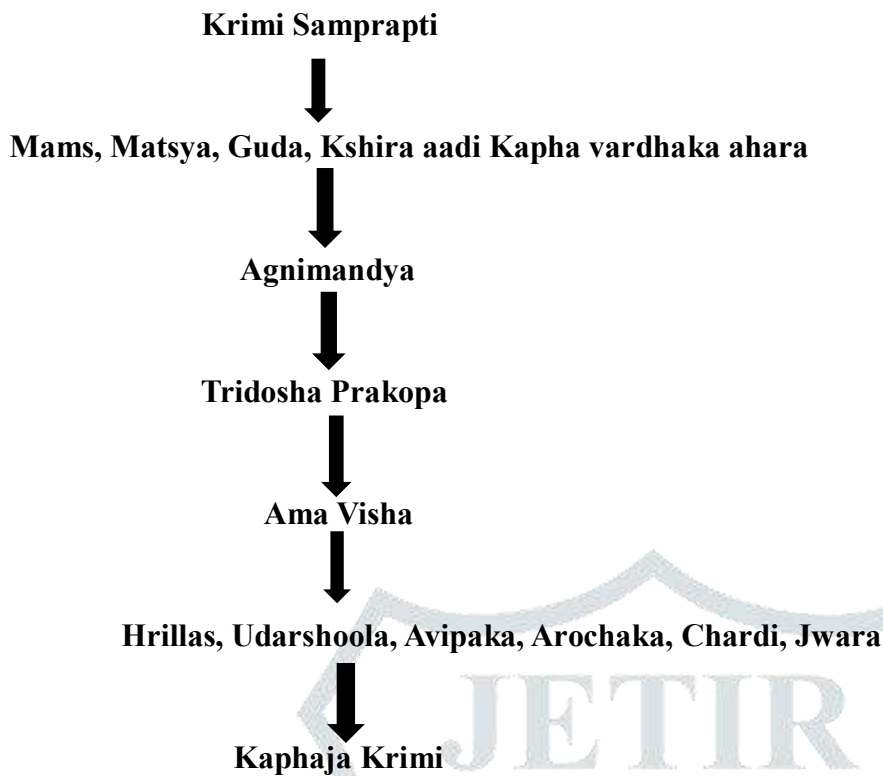
1. Asatmya
2. Virudha
3. Malina
4. Adhyashana
5. Ajeerna

RUPA⁽¹⁴⁾**Rupa of Bahya Krimi**

1. Kandu
2. Kotha
3. Pidaka
4. Ganda

Rupa of Abhyantara Krimi

1. Jwara
2. Vivarnata
3. Shoola
4. Hridroga
5. Bhrama
6. Bhaktadwasha
7. Atisara
8. Sadana
9. Vami
10. Jataragarjanam
11. Mandagni
12. Pipasa
13. Pitanetra

SAMPRAPTI⁽¹⁵⁾**TREATMENT:**

Ayurvedic texts deal with the preventive as well as curative aspects to keep a human being healthy. In 7th Chapter of Vimana Sthana, Charaka has given the three main procedures in the treatment of Krimi Roga.

1. Apakarshana
2. Prakriti Vighata
3. Nidana Parivarjana

Apakarshana⁽¹⁵⁾

Any process by which the unwanted elements are removed or extracted from the body is considered as Apakarshana. Apakarshana of Krimis includes the manual and instrumental removal of them where it is applicable. Apakarshana of the Bahya Krimi and Abhyantara Krimi, which are migrated out to the external surface should be done by manual method. Apakarshana of Abhayantara Krimis, which resides in their usual habitat, should be done by the elimination method.

- i. Vamana
- ii. Virechana
- iii. Shirovirechana
- iv. Asthapana Basti

Prakriti Vighata⁽¹⁶⁾

Bringing obstruction to the environment of origin and growth of Krimi is termed as Prakriti Vighata. It is derived from two words 'Prakriti' means nature and 'Vighata' means obstruction or to demolish. Prakriti Vighata is the process of counteraction of Krimi origination by Dravyas with Katu, Tikta, Kashaya, Kshara and Ushna Guna. Other drugs having contrary properties to Purisha and Kapha are also used.

Nidana Parivarjana⁽¹⁷⁾

Nidana Parivarjana means to eliminate the causative factors which helps in producing, germinating and the growth of Krimi. Hence it is suggested to avoid the factors responsible to produce the Krimi

PATHYA APATHYA:**Pathya in Krimi Roga****Purification Methods-**

1.Virechana 2. Shirovirechana 3. Asthapana Basti 4. Dhumapana 5. Snehana 6.Swedana 7. Shariramarjana 8. Avoidance of worry

Vegetables

1.Nimba 2. Vastukam 3. Arka (Shukla) 4. Karavellaka 5. oshataki 6. Patola 7. Tanduliyaka\

Grains

1.Rakta Shali 2. Tila 3. Sarshapa 4. Kulatha 5. Mudga

Animal Products

1.Gomutra 2. Ushtra Mutra 3. Ksheera 4. Ushtra Ghrita 5 Kasturi 6.Madhu

Diet articles having following taste & qualities

1.Tikta 2. Kashaya 3.Katu 4. Ruksha 5. Ushna

Fermented Articles

1.Sura 2. Shukta 3.Sauvira 4. Tushodaka

Certain Herbs

1.Patola 2. Vetragra 3. Rasona 4.Chitraka 5. Kantakari 6. Vidanga 7. Haritaki 8. Bhallataka 9. Tambula 10. Hingu 11 Yavakshara 12 Ajamoda 13. Khadira 14. Kutaja 15. Jambira 16. Ajamoda 17. Devadaru 18. Agaru 19. Sarshapa 20. Shatapushpa 21. Jeevanti 22. Shunthi

Apathya in Krimi Roga:

1.Vamanavega Vidharana 2. Diwaswapna 3. Ajirna 4. Pishtamaya Padartha 5.Masha 6. Amla Rasa 7. Madhura Rasa 8. Sheetha Jala 9. Kshara 10. Mamsa 11. Ksheera 12. Ghrita 13. Parna Shaka 14. Viruddha Bhojana 15. Dadhi 16. Drava Padartha 17. Sauvira

DISCUSSION

Description of Krimi in Samhita Granthas are in combine form. We can conclude all the microorganism parasite, helminth, bacteria and virus. Under the concept of Krimiroga but protozoa and helminth are more nearer. Acharya Charak classified Krimi as Sahaja and Vaikarika means they are pathogenic and non pathogenic krimi . Acharyas just mention non-pathogenic worms by its name as Sahaja. Under the Vaikarika Krimi two subgroups are described as Bahya and Abhayantara Krimi. It means external Krimis can also create disease condition Acharyas further divided internal Krimis in three groups (1) Raktaja (2) Purishaja and (3) Sleshmaja according to their habitat and the media in which Krimis grow. Shleshamaja Krimi is one class of Krimi which grow on the Ama and live-in stomach, small intestine or upper part of gastro intestinal tract. Purishaja Krimi is one class of Krimi which grow on fecal material and live in Pakawasaya, large intestine or the lower part of gastro intestinal tract. Raktaja Krimi live in blood and blood forming organ (liver). Acharya Bhava Mishra described Raktaja Krimi as an causative factor of skin disease.

CONCLUSION

The concept of Krimi is not new. From the period of Veda its existence was felt. Ayurveda the science of life has elaborately described about the worms as Krimi Roga. Krimi can be considered all microorganism helminth protozoa, parasite, virus bacteria. Acharyas classified Krimi as Sahaja and Vaikarika means they also know about nonpathogenic nature of Krimi. Sleshmaja Krimi is a class of Krimi which lives in upper part of Gastro intestinal tract and grow on Ama. Purishaya Krimi is a class of Krimi which lives in lower part of Gastro intestinal tract and survive on fecal material. Raktaja Krimi live in Blood and Blood forming organs like (liver). It is very difficult

to correlate Ayurvedic terms regarding the Krimi with modern term due to lack of detail description of each Krimi. Sushruta described Ahara Sambandi Nidan and Vihar Sambandi Nidana for Krimiroga. Acharyas has described Krimi in various Samhitas in detail they also believe that Krimi can be etiological factors for various disease like Krimi Hridroga and Krimi Shiroroga etc.

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