

**MRITIKA BHAKSHAN JANYA PANDU: A CLINICAL AND AYURVEDIC PERSPECTIVE ON ANEMIA DUE TO GEOPHAGIA****Dichen Angmo¹, Ranu Rajpurohit², Akhilesh Kumar Srivastava³**

1 M. D. 2nd Year, Dept of Rog Nidan Evam Vikriti Vigyan, R.G.G.P.G. Ayurvedic College & Hospital, Paprola, Distt. Kangra, H.P., India.

2 M. D. 2nd Year, Dept of Rog Nidan Evam Vikriti Vigyan, R.G.G.P.G. Ayurvedic College & Hospital, Paprola, Distt. Kangra, H.P., India.

3 Prof. Dept. of Rog Nidan Evam Vikriti Vigyan, R.G.G.P.G. Ayurvedic College & Hospital, Paprola, Distt. Kangra, H.P., India.

Corresponding Author: angmodichen35@gmail.com

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**ABSTRACT**

Mritikabhakshan (soil ingestion) *Janya* (caused by) *Pandu* (anemia), or iron deficiency anemia, is a common health disorder affecting a large proportion of the world's population, especially in developing countries. The underlying cause is iron deficiency, which reduces the body's ability to produce sufficient hemoglobin, a critical component of red blood cells responsible for transporting oxygen throughout the body. *Mritikabhakshan Janya Pandu*, a condition that describes anemia caused by geophagia, or the consumption of soil or clay. Eating dirt or soil-like stuff known as geophagia, is a big issue in some cultures especially for kids and pregnant women. In *Ayurveda*, people call this "*Mritikabhakshan*," which means eating clay or soil. This habit can lead to health problems, including anemia, which *Ayurveda* calls "*Pandu Roga* (anemia)." This research looks at anemia caused by geophagia from both modern medical and *Ayurvedic* points of view, bringing together insights from both fields. The clinical view shows how eating dirt has an impact on iron deficiency anemia. Soil consumption gets in the way of nutrient absorption and causes gut problems. From an *Ayurvedic* standpoint, *Mritikabhakshan Janya Pandu* stems from weak *Agni* (digestive fire) and a buildup of *Ama* (toxins). This leads to imbalances in *Doshas* (fun-

damental energies) *Pitta* and *Kapha*. *Ayurvedic* writing stresses that poor eating habits and mental factors can trigger this behavior.

Keywords: *Mritikabhakshan Janya Pandu*, anemia, *Pandu Roga*, geophagia.

INTRODUCTION

The classification of *Pandu Roga* and its detailed description begins only from *Ayurvedic Samhitas* (classical texts). Most of the *Acharyas* had accepted the disease under five categories, *Vataja*, *Pittaja*, *Kaphaja*, *Sannipataja* and *Mritikabhakshanajanya*. This type of *Pandu* has been described in detail by *Acharya Charak*, *Vagbhatta*, *Madhava* and *Harita*^{1,2,3}. The classical work of *Acharya Susrutha* has mentioned four types of *Pandu*. He excluded the *Mritikabhakshanajanya Pandu*, and he explains for this as the *Mritikabhakshanajanya Pandu* may include in *Vatadi Doshaja Pandu's* (Anemia caused by vitiation of *Vata* and other *Doshas*) according to *Rasa Pradhanatva* (the supremacy or predominance of *Rasa*.) of *Mrittika* (soil)⁴, *Madhava* has tried to explain the classification given by *Acharya Sushruta* by explaining that *Dosha Prakopa* (aggravation or imbalance of the *Doshas*) in the body occurs according to the *Rasa* (nourishment) of the *Mrittika* and thus may be included in that particular type. The reason for *Acharya Charaka* and *Vagbhatta* including *Mritikabhakshanajanya Pandu* separately may be the specific treatment advised for it. Another reason for it could be that *Acharya Charaka* has not included *Pandu* in the symptoms of *Krimi Roga* (diseases caused by worms) while *Sushruta* has done so (in *Purishaja Krimi Lakshana* (symptoms of worms)), hereby eliminating the need of *Mritikabhakshanajanya Pandu*⁵. In *Harita Samhita Rukshana Pandu* (a type of anemia associated with dryness) appear of *Mritikabhakshanajanya Pandu*⁶. Geophagia is the deliberate consumption of soil or clay, and it has deep cultural, psychological, and physiological roots. Though practiced in many parts of the world, especially in Africa, Asia, and South America, its presence in populations such as children, pregnant women, and individuals with pica poses significant health concerns. Traditionally, geophagia is associated with cultural rituals

and spiritual beliefs, or with such perceived benefits as helping women to manage nausea in early pregnancy. From a medical perspective, its implications range from contributing to nutritional deficiency, parasitic infection, and gastrointestinal disturbance. Amongst the most significant health complications of geophagia is anemia, majorly iron deficiency anemia. The soil particles and clays in the ingested soil celebrate the minerals that are otherwise consumed to be absorbed in the gastrointestinal tract, thereby interfering with the absorption of dietary iron. Additionally, chronic consumption of soil may expose these individuals to heavy metals and toxins, which further damages their health. Anemia due to geophagia should be diagnosed and managed multidimensionally from the modern clinical point of view. Laboratory investigation commonly yields low hemoglobin, low serum ferritin, and other markers suggestive of iron deficiency. Besides nutritional supplementation, the behavioral aspect of geophagia has to be tackled for recovery to be maintained. This is supplemented in *Ayurveda* by regaining digestive fire (*Agni*), enhancing nutrient absorption, and detoxifying the body for the removal of harmful effects of soil consumption.

Clinical presentations of geophagia:

1. Iron Deficiency Anemia: Soil ingestion prevents the adequate absorption of dietary iron from the digestive system because the clay particles cause binding, thereby resulting in: Fatigue Pallor (skin and mucous membranes appear pale) Weakness Shortness of breath Brittle nails and hair loss

2. Gastrointestinal Symptoms:

Constipation or diarrhea Abdominal discomfort or bloating Intestinal parasitic infections from ingested soil

3. Micronutrient Deficiencies: Loss of critical nutrients (calcium, zinc) which can result in poor immunity and growth in children.

4.Neurological Symptoms: Chronic iron deficiency causes cognitive impairment or delays, especially among children.

5.Pica-related disorders: Geophagia is a form of pica. It represents a craving for non-food substances, which are mainly associated with nutritional deficiencies or even psychological factors.

Clinical presentation of Mritika Bhakshan Janya Pandu:

“शूनगण्डाक्षिकूटभ्रूः शूनपान्नाभिमेहनः| क्रिमिकोष्ठोऽतिसार्येत
मलं सासृक् कफान्वितम्”⁷

शूनगण्डाक्षिकूटभ्रूः Swelling in the cheeks, eyes, and forehead.

शूनपान्नाभिमेहनः Swelling of the mouth, abdomen, and genital region.

क्रिमिकोष्ठोऽतिसार्येत Infestation with intestinal worms leading to diarrhea

मलं सासृक् कफान्वितम्: Stool mixed with blood and mucus.

The passage among the three *Dosha* means one of *Vata*, *Pitta* and *Kapha*. The land rich in alkaline content and hence, non-cultivate is known as *Usara* (saline land). The functioning capacity is the strength of the organs. According to *Jejjata*, *Teja* (fire) is lustre while it has been interpreted as *Usma* (heat) by *Cakrapani*. The potency is known as *Virya* (potency). According to *Parasara*, *Oja* (immunity) is the essence of all the *Dhatus* (seven fundamental tissues) including the *Shukra* (reproductive tissue or semen) and *Jejjata* says, it means desire to overcome others. In the opinion of *Jejjata*, *Krimikosthata* (worm infestation) refers to the general features of all *Pandu* varieties. Others opine that this symptom is to be attributed to *Pandu* caused by eating soil alone. In the opinion of *Videha*, consuming soil gives rise to such symptoms as paleness of the body drowsiness, lassitude. Dyspnoea, cough, emaciation, piles, depression, distaste, swelling of feet and hands, emaciation of the body and a weak digestive fire⁸.

DISCUSSION

The features described by *Acharya Charaka* mainly fall under three headings-Oedema in various body parts (peri-orbital, pedal, umbilical and genital); development of worms in the abdomen; and passage of loose stools and stools associated with mucous and blood. Majority of these features come under the category of worm infestation and their presentations. The oedema in the various body parts could probably relate to the malnourishment occurring due to worm interfering with the digestion and absorption process. Eating of soil or ingestion of articles contaminated with soil has been chemically proved by scientists as the cause of anemia due to worm infestation and consequent blood loss. Even a minute amount of blood loss can bring on iron deficient anemia in due course of time, in individuals in whom the loss remains uncompensated. The infested worms suck blood from the intestinal mucosa and then they leave the site which continues to bleed for some time further, as the result of the anticoagulant, released by the worms for easing the suction of their own blood. At such small levels of bloodshed, if these go on continuously for more extended period and at different points of body sites (owing to infestation in a number) cause huge quantities to be drained. of blood. Women with PICA have also been associated with vitamin deficiency of folate, and B12 along with that of iron in a study ranging to the extent of 82.4%, 41.2% and 70.6% respectively⁹. Depending upon the *Doshas*, different types of treatment should be given to the patient suffering from *Mritikabhakshanajanya Pandu*. However, because of the specific nature of the causative factor such kind of *Pandu* required special treatment of that physician. The doctor has to perform *Tikshna Shodhana* (intense purgation therapies) treatment to that patient keeping his mind the strengths so that to make soil to eradicate from boy body. So once the dirt got cleaned on body, to support strength provide all kinds of medicines in form of *Ghee* (clarified butter). *Acharya Charak* has described a recipe for causing aversion to soil which consists of clay impregnated with *Vidanga*, *Ela*, *Ativisa*, *Neem-leaf*, *Pathya*, *Katurohini* and *Kutaja*¹⁰.

CONCLUSION

Geophagia-related anemia, known in *Ayurveda* as *Mritika Bhakshan Janya Pandu*, is a phenomenon where cultural habits interplay with nutritional deficiencies to bring about the problem of health. Though it may be an activity often triggered by socio-cultural and psychological causes, geophagia creates considerable medical issues like anemia through poor iron absorption and disturbed nutritional balance. From a medical perspective, correction of the underlying causes is the most practical approach to be used in handling geophagia. Counseling, supplementation and education are a must in lessening its morbidity and risk factors. *Ayurveda* can be brought into mainstream to tackle the problem holistically. By balancing *Doshas*, improving *Agni*, and infusing iron-rich and *Rasayana* (rejuvenation) therapies, *Ayurveda* goes hand-in-hand with modern treatments. The incorporation of therapies like *Lauh Bhasma* (purified iron), dietary modification, and lifestyle corrections is a sustainable path that will help treat geophagia-induced anemia based on both its symptoms as well as root causes.

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