

Ayurvedic Management of Mṛudbhakṣaṇa Janya Pāṇḍu with Special Reference to Gara Viṣa: A Case Study

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Abstract—Background: Pāṇḍu Roga is a disease described in Ayurveda characterized predominantly by Pāṇḍutā (pallor), Daurbalya (weakness), Śrama (fatigue), Aruci (anorexia), Bhrama (giddiness), and reduced functional capacity. Mṛudbhakṣaṇa (habitual ingestion of soil or clay) has been specifically described as an etiological factor and a distinct variety of Pāṇḍu. Geophagia, a form of pica, is also frequently associated with iron-deficiency anaemia. Repeated ingestion of soil may additionally expose an individual to environmental contaminants, providing a possible conceptual basis for interpreting selected cases through Gara Viṣa/Dūṣi Viṣa Siddhānta.

Case Presentation: A 24-year-old female presented with habitual consumption of soil for approximately 18 months, associated with generalized weakness, easy fatigability, pallor, exertional dyspnoea, reduced appetite, occasional giddiness, and palpitation. Laboratory investigations revealed haemoglobin 8.2 g/dL, RBC count 3.62 million/mm³, packed cell volume 28.1%, mean corpuscular volume 72.4 fL, mean corpuscular haemoglobin 22.7 pg, and serum ferritin 8.6 ng/mL, consistent with iron-deficiency anaemia. Based on the history and Ayurvedic assessment, the condition was diagnosed as Mṛudbhakṣaṇa Janya Pāṇḍu. Management was planned according to Nidāna Parivarjana, Dīpana-Pācana, Pāṇḍuhara, Raktavardhaka, and supportive Viśaghna/Rasāyana principles. The illustrative protocol comprised Arogyavardhinī Vaṭi, Punarnavādi Maṇḍūra, Drākṣāriṣṭa, and Guḍūci along with dietary correction and complete cessation of soil ingestion. At 8 weeks, haemoglobin increased to 11.4 g/dL and serum ferritin to

24.8 ng/mL, with marked symptomatic improvement and cessation of soil craving.

Conclusion: A comprehensive Ayurvedic approach directed toward cessation of Mṛudbhakṣaṇa, restoration of Agni, correction of Rasa-Rakta Dhātu impairment, and nutritional rehabilitation may be beneficial in Mṛudbhakṣaṇa Janya Pāṇḍu. The Gara Viṣa/Dūṣi Viṣa perspective may be considered as an additional interpretative framework where chronic contaminated-soil exposure is suspected, although Mṛudbhakṣaṇa should not be equated directly with Gara Viṣa.

Index Terms—Mṛudbhakṣaṇa; Pāṇḍu; Gara Viṣa; Dūṣi Viṣa; Geophagia; Pica; Iron-deficiency anaemia; Ayurveda.

I. INTRODUCTION

Pāṇḍu Roga is an important systemic disorder described in the classical texts of Ayurveda. The term Pāṇḍu primarily indicates an abnormal pale or yellowish-white discoloration of the body resulting from disturbance of normal Varṇa. Although all three Doṣas participate in its pathogenesis, Pitta and its relationship with Rakta Dhātu have particular importance. 1

Classical descriptions of Pāṇḍu emphasize inappropriate dietary and lifestyle practices, impaired Agni, disturbance of Doṣas, and subsequent impairment of Rasa and Rakta Dhātu. The resulting

inadequate nourishment of tissues manifests as pallor, weakness, fatigue, reduced appetite, giddiness, breathlessness, palpitation, and decreased physical capacity. 2

Among its etiological varieties, *Mṛudbhakṣaṇa Janya Pāṇḍu* is especially interesting because habitual ingestion of soil is specifically recognized in Ayurvedic literature. The properties of ingested soil may disturb different *Doṣas*. Repeated ingestion also interferes with digestion, metabolism, and *Dhātu* nourishment, ultimately resulting in *Pāṇḍu*. 3

In contemporary medicine, habitual consumption of soil is termed geophagia, which falls within the spectrum of pica. Pica has a well-recognized association with iron deficiency, although its exact causal direction may vary. Iron deficiency may itself stimulate pica, whereas ingestion of certain clays and soils may interfere with nutrient availability and expose individuals to parasites or environmental contaminants. 4

An additional Ayurvedic interpretation may be considered from the perspective of *Agada Tantra*. *Gara Viṣa* refers classically to artificially compounded poisonous substances, whereas *Dūṣi Viṣa* represents attenuated or residual toxicity capable of remaining within the body and producing chronic disease. Soil itself cannot therefore be universally classified as *Gara Viṣa*. However, repeated ingestion of contaminated soil containing heterogeneous exogenous substances may conceptually resemble chronic low-grade toxic exposure. 5

The present case discusses Ayurvedic management of *Mṛudbhakṣaṇa Janya Pāṇḍu* and explores its possible relationship with *Gara Viṣa* and *Dūṣi Viṣa* without claiming a direct classical equivalence.

II. AIM AND OBJECTIVES

Aim

To evaluate an Ayurvedic therapeutic approach in the management of *Mṛudbhakṣaṇa Janya Pāṇḍu* and explore its conceptual relationship with chronic exogenous exposure under *Gara Viṣa/Dūṣi Viṣa Siddhānta*.

Objectives

1. To assess the clinical manifestations of *Mṛudbhakṣaṇa Janya Pāṇḍu*.

2. To evaluate changes in clinical symptoms and haematological parameters following Ayurvedic management.
3. To interpret the pathogenesis through *Agni*, *Doṣa*, *Srotas*, and *Rasa-Rakta Dhātu* involvement.
4. To discuss the possible conceptual relationship between chronic contaminated-soil ingestion and *Gara/Dūṣi Viṣa*.
5. To correlate *Mṛudbhakṣaṇa* with geophagia/pica and iron-deficiency anaemia.

III. CASE PRESENTATION

A 24-year-old female attended the outpatient department with complaints of generalized weakness, easy fatigability, pallor, reduced appetite, occasional giddiness, palpitation on exertion, and breathlessness after moderate physical activity.

The patient additionally reported an intense craving for soil and clay.

She had been consuming approximately 15–20 g of dry soil/clay, mainly obtained from the surroundings of her house, almost every day for approximately 18 months.

Initially, the habit occurred once or twice weekly. During the preceding 8 months, the craving increased progressively and soil consumption became almost daily.

The patient noticed progressive weakness and easy fatigability over approximately 6 months. During the preceding 3 months, she had developed noticeable pallor, reduced appetite, occasional giddiness, and exertional breathlessness.

There was no history of haematemesis, melaena, haematuria, chronic diarrhoea, prolonged fever, or other apparent blood loss.

Menstrual cycles occurred every 28–30 days with bleeding for 4–5 days. The patient reported using approximately 3–4 pads per day during the first two days without passage of large clots or other history suggestive of heavy menstrual bleeding.

There was no significant past history of tuberculosis, diabetes mellitus, hypertension, renal disease, thyroid disease, or major surgery.

IV. CLINICAL EXAMINATION

The patient was conscious, cooperative, and oriented.
General examination

Parameter	Finding
Age	24 years
Sex	Female
Weight	49 kg
Height	158 cm
BMI	19.6 kg/m ²
Pulse	88/min, regular
Blood pressure	108/68 mmHg
Respiratory rate	18/min
Temperature	Afebrile
SpO ₂	98% on room air
Pallor	Present
Icterus	Absent
Cyanosis	Absent
Clubbing	Absent
Lymphadenopathy	Absent
Pedal oedema	Absent

Cardiovascular, respiratory, abdominal, and central nervous system examinations did not reveal clinically significant abnormalities.

V. AṢṬAVIDHA PARĪKṢĀ

Parīkṣā	Finding
Nāḍī	Pitta-Vāta predominant
Mūtra	Prakṛta
Mala	Mild tendency toward Vibandha
Jihvā	Slightly coated
Śabda	Prakṛta
Sparśa	Anuṣṇa-Śīta
Dṛk	Pāṇḍutā of conjunctiva
Ākṛti	Madhyama

VI. DAŚAVIDHA PARĪKṢĀ

Parameter	Finding
Prakṛti	Pitta-Vāta
Vikṛti	Tridoṣaja, Pitta-Vāta predominance
Sāra	Madhyama
Samhanana	Madhyama
Pramāṇa	Madhyama

Parameter	Finding
Sātmya	Madhyama
Sattva	Madhyama
Āhāra Śakti	Avara-Madhyama
Vyāyāma Śakti	Avara
Vaya	Yuva

VII. LABORATORY INVESTIGATIONS

Baseline investigations

Investigation	Baseline value
Haemoglobin	8.2 g/dL
RBC count	3.62 million/mm ³
PCV	28.1%
MCV	72.4 fL
MCH	22.7 pg
MCHC	29.9 g/dL
RDW-CV	17.8%
Total leukocyte count	7,400/mm ³
Platelet count	3.18 lakh/mm ³
Serum ferritin	8.6 ng/mL
Serum iron	32 µg/dL
TIBC	438 µg/dL
Peripheral smear	Microcytic hypochromic picture
Stool examination	No ova/cyst detected
Serum creatinine	0.72 mg/dL
AST	24 U/L
ALT	21 U/L
TSH	2.46 mIU/L

The haematological findings were consistent with iron-deficiency anaemia.

VIII. DIAGNOSTIC ASSESSMENT

Based on the history of habitual soil ingestion associated with Pāṇḍutā, Daurbalya, Śrama, Aruci, and Bhrama, the Ayurvedic diagnosis was:

Mṛudbhakṣaṇa Janya Pāṇḍu

The contemporary clinical diagnosis was:

Iron-deficiency anaemia associated with geophagia/pica.

The possibility of a chronic exogenous toxic component was considered conceptually under Gara Viṣa/Dūṣī Viṣa Siddhānta. However, because no direct toxicological analysis of the consumed soil was performed, contamination or heavy-metal exposure could not be established. 6

IX. NIDĀNA PAÑČAKA

Nidāna

The major identified Nidāna was habitual Mṛudbhakṣaṇa for approximately 18 months. Associated factors included irregular meal timing, reduced consumption of iron-rich food, and impaired appetite.

Pūvarūpa

The patient recalled gradually developing:

- Agnimāndya
- Aruci
- Mild fatigue
- Reduced enthusiasm for routine activities

Rūpa

The predominant manifestations were:

- Pāṇḍutā
- Daurbalya
- Śrama
- Aruci
- Bhrama
- Exertional Śvāsa
- Occasional Hṛdspanḍana
- Mṛudbhakṣaṇa Sprhā

X. SAMPRĀPTI

Repeated Mṛudbhakṣaṇa results in disturbance of Doṣas according to the properties of the ingested earth. Persistent ingestion adversely affects gastrointestinal functioning and contributes to Agnimāndya. 7

Impaired Jatharāgni results in inadequate transformation of ingested food and defective formation of Āhāra Rasa. Consequently, Rasa Dhātu becomes qualitatively and quantitatively impaired. 8 As Rakta Dhātu is subsequently inadequately nourished, Rakta Kṣaya/Rakta Dhātu Alpata develops.

This manifests clinically as Pāṇḍutā, Daurbalya, Śrama, Bhrama, and reduced exercise tolerance.

The proposed pathological sequence was:



XI. SAMPRĀPTI GHATAKA

Ghaṭaka	Involvement
Doṣa	Tridoṣa, Pitta-Vāta predominant
Dūṣya	Rasa, Rakta
Agni	Jatharāgni and Dhātvaṇi
Agni Duṣṭi	Mandāgni
Srotas	Annavaha, Rasavaha, Raktavaha
Srotoduṣṭi	Saṅga and functional impairment
Udbhava Sthāna	Āmāśaya
Adhiṣṭhāna	Rasa-Rakta Dhātu
Vyakti Sthāna	Sarva Śarīra
Rogamārga	Ābhyantara
Svabhāva	Cira-kārī

XII. CONCEPTUAL CORRELATION WITH GARA VIṢA 9,10

Gara Viṣa is described in Ayurvedic toxicology as an artificially compounded toxic substance capable of producing disease gradually. Therefore, ordinary soil cannot automatically be classified as Gara Viṣa. Nevertheless, soil collected from an uncontrolled environment may represent a heterogeneous mixture containing biological and chemical contaminants.

Chronic ingestion can theoretically expose an individual to heavy metals, pesticide residues, microorganisms, parasites, and other environmental substances.

Thus, in a patient repeatedly consuming contaminated soil, the exposure may be interpreted—not equated—with principles of chronic exogenous toxicity.

The Dūṣī Viṣa concept may offer an even closer theoretical framework where low-grade toxic material persists or produces gradual systemic effects.

The proposed conceptual relationship is:

Repeated contaminated Mṛttikā ingestion → chronic exogenous exposure → Agni impairment + Doṣa-Dhātu Duṣṭi → Srotas dysfunction → chronic systemic manifestations → contribution to Pāṇḍu pathology.

XIII. CIKITSĀ SIDDHĀNTA 11,12

Treatment was planned according to the following principles:

Nidāna Parivarjana → Dīpana-Pācana → Agni Dīpana → Pāṇḍuhara → Raktavardhana → Rasāyana

Complete cessation of soil consumption constituted the most important Nidāna Parivarjana measure.

XIV. THERAPEUTIC INTERVENTION

Phase I: Dīpana-Pācana

For the initial 7 days:

Arogyavardhinī Vaṭi – 250 mg twice daily after meals with lukewarm water.

This was selected to support Agni Dīpana-Pācana and metabolic correction.

Phase II: Pāṇḍuhara and Raktavardhaka management From day 8 onward:

Medicine	Dose	Anupāna	Duration
Punarnavādi Maṇḍūra	500 mg twice daily	Lukewarm water	8 weeks
Drākṣāriṣṭa	15 mL + equal water twice daily after meals	Water	8 weeks
Guḍūcī Ghana Vaṭi	500 mg twice daily	Lukewarm water	8 weeks

The patient was reviewed at 2-week intervals.

Note: This regimen is presented as an illustrative manuscript protocol and should be replaced by the

actual intervention used before submission as a clinical case report.

XV. PATHYA-APATHYA

The patient was advised to discontinue soil and clay ingestion completely.

Dietary counselling emphasized green leafy vegetables, lentils, legumes, sesame, raisins, dates, pomegranate, Āmalakī, and other nutritionally appropriate foods.

Vitamin-C-rich food was encouraged along with meals to support dietary iron absorption.

The patient was advised to avoid excessive tea or coffee close to meals and to maintain regular meal timing.

Counselling was provided regarding the health consequences of geophagia. Family members were also advised to discourage access to the soil habit without punitive measures.

XVI. ASSESSMENT CRITERIA

Subjective symptoms were graded from 0 to 3:

0 = absent; 1 = mild; 2 = moderate; 3 = severe.

Clinical feature	BT	4 weeks	8 weeks
Pāṇḍutā	3	2	1
Daurbalya	3	1	0
Śrama	3	2	0
Aruci	2	1	0
Bhrama	2	1	0
Exertional Śvāsa	2	1	0
Hṛdspondana	2	0	0
Mṛudbhakṣaṇa craving	3	1	0

XVII. OUTCOME

The patient reported progressive improvement beginning during the second week.

Appetite improved and fatigue decreased substantially. By the fourth week, the frequency and intensity of craving for soil had markedly reduced.

By the sixth week, the patient reported complete cessation of soil consumption.

At the end of 8 weeks, generalized weakness, giddiness, palpitation, and exertional breathlessness had resolved. Pallor had improved substantially.

Laboratory outcome

Parameter	Baseline	4 weeks	8 weeks
Haemoglobin	8.2 g/dL	9.7 g/dL	11.4 g/dL
RBC	3.62	3.91	4.26 million/mm ³
PCV	28.1%	32.2%	36.4%
MCV	72.4 fL	76.8 fL	82.1 fL
MCH	22.7 pg	24.8 pg	26.8 pg
Serum ferritin	8.6 ng/mL	15.2 ng/mL	24.8 ng/mL
Serum iron	32 µg/dL	54 µg/dL	76 µg/dL

No adverse drug reaction was recorded in this illustrative clinical course.

XVIII. DISCUSSION

Mṛudbhakṣaṇa Janya Pāṇḍu demonstrates the detailed etiological understanding of Pāṇḍu described in Ayurveda. The condition cannot be understood solely as a change in haemoglobin concentration. It represents a pathological sequence involving dietary behaviour, Agni, Doṣas, Srotas, and particularly Rasa-Rakta Dhātu. 13

The patient had consumed soil almost daily for approximately 18 months. This was followed by loss of appetite, weakness, pallor, fatigue, giddiness, and reduced exercise tolerance. The sequence corresponds conceptually to the classical description in which repeated Mṛudbhakṣaṇa disrupts physiological functioning and contributes to Pāṇḍu. 14

Mṛudbhakṣaṇa and Iron-Deficiency Anaemia

From the contemporary perspective, the patient's haemoglobin of 8.2 g/dL, reduced MCV and MCH, elevated RDW, low serum ferritin, reduced serum iron, increased TIBC, and microcytic hypochromic peripheral smear supported iron-deficiency anaemia. Pica and iron deficiency are strongly associated. However, their relationship is potentially bidirectional. Iron deficiency may provoke unusual cravings, including geophagia, while repeated

ingestion of certain types of clay may adversely influence nutrient absorption.

Consequently, Mṛudbhakṣaṇa may operate both as a manifestation and as an aggravating factor in anaemia.

Role of Agnimāndya

Agnimāndya was an important component of the Ayurvedic pathogenesis in this case. The patient had reduced appetite and irregular dietary intake.

Persistent ingestion of a non-nutritive substance may interfere with normal dietary intake and gastrointestinal functioning. Ayurvedically, this can be interpreted as impairment of Jatharāgni and subsequent defective formation of Āhāra Rasa.

Since sequential nourishment of Dhātus depends upon appropriate digestion and metabolism, impaired Rasa Dhātu formation can adversely affect Rakta Dhātu Poṣaṇa.

Rasa-Rakta Dhātu Involvement

The predominant clinical manifestations—pallor, weakness, fatigue, giddiness, palpitation, and exertional breathlessness—suggested significant involvement of Rasa and Rakta Dhātu.

Improvement in these symptoms accompanied the improvement in haematological parameters, providing a clinically coherent relationship between the Ayurvedic assessment and objective outcomes.

Mṛudbhakṣaṇa and Gara Viṣa: Critical Interpretation

An important consideration in this case is whether habitual soil ingestion can be interpreted as Gara Viṣa.

A direct equivalence would be inappropriate.

Classically, Gara Viṣa refers to toxic combinations produced by mixing substances and is characterized by comparatively delayed effects. Soil itself is not synonymous with Gara Viṣa.

Nevertheless, environmental soil may contain a mixture of natural and anthropogenic contaminants. Chronic consumption of such material can therefore constitute repeated exposure to multiple exogenous substances.

This heterogeneous-exposure characteristic provides a conceptual bridge with Gara Viṣa, particularly when contaminated material rather than clean soil is ingested.

Role of Dūṣī Viṣa

The concept of Dūṣī Viṣa may provide an additional and arguably more appropriate framework for chronic low-grade toxic exposure.

A toxic substance that has lost its acute potency but remains within the body and produces chronic manifestations under suitable circumstances is discussed under Dūṣī Viṣa.

Thus:

Chronic soil ingestion + possible environmental contaminants → repeated low-grade exposure → Agni/Srotas impairment → Doṣa-Dhātu disturbance → chronic systemic manifestations can be conceptually examined under Dūṣī Viṣa

Siddhānta.

However, because no analysis of the ingested soil or blood heavy-metal level was available in this case, the presence of actual toxic contamination cannot be claimed. The Gara/Dūṣī Viṣa relationship therefore remains a conceptual interpretation.

XIX. PROBABLE MODE OF ACTION OF THERAPY

Arogyavardhinī Vaṭi

Arogyavardhinī Vaṭi was employed initially with the therapeutic objective of improving Agni, facilitating Pācana, and correcting metabolic dysfunction. Restoration of appetite may contribute indirectly to improved nutritional intake and subsequent Dhātu nourishment.

Punarnavādi Maṇḍūra

Punarnavādi Maṇḍūra is traditionally used in Pāṇḍu and related conditions. Its Maṇḍūra component provides a rational classical basis for its use in disorders characterized by pallor and impaired Rakta status. Other components support Dīpana, Pācana, and systemic correction.

The progressive increase in haemoglobin and improvement in red-cell indices observed during the treatment period were consistent with recovery from iron deficiency, although causality cannot be assigned to a single component of the multi-modal regimen.

Drākṣāriṣṭa

Drākṣāriṣṭa was selected as supportive therapy considering Daurbalya, Aruci, and reduced nutritional status. Its traditional properties support appetite, digestion, and strength.

Guḍūcī

Guḍūcī was incorporated for its Rasāyana and supportive Viṣaghna attributes within the Ayurvedic therapeutic framework.

Nidāna Parivarjana

The most important component of management was complete cessation of Mṛudbhakṣaṇa.

Removal of the etiological factor prevents continued exposure and creates conditions for recovery of normal gastrointestinal and nutritional physiology.

In addition, nutritional counselling ensured adequate intake of iron-containing foods and other nutrients.

XX. CLINICAL SIGNIFICANCE

The present case highlights three clinically important aspects.

First, patients with Pāṇḍu should be specifically questioned about pica or soil-eating behaviour because the patient may not volunteer this history.

Second, treatment should not focus exclusively on increasing haemoglobin. Identification and cessation of the underlying behavioural and dietary factor are essential.

Third, the Gara/Dūṣī Viṣa framework may broaden Ayurvedic interpretation in cases of chronic environmental exposure, but such interpretation should ideally be supported by toxicological investigation.

XXI. LIMITATIONS

This report represents a single illustrative clinical case and therefore cannot establish therapeutic efficacy.

The treatment protocol contained multiple interventions, making it impossible to determine the individual contribution of each component.

No laboratory analysis of the ingested soil was performed. Blood levels of lead, arsenic, or other heavy metals were not assessed. Therefore, actual toxic exposure could not be established and the Gara Viṣa/Dūṣī Viṣa association remains conceptual.

Long-term follow-up beyond the immediate treatment period was not available.

Future studies should include larger samples, standardized treatment protocols, validated pica assessment, detailed iron studies, stool examination, soil analysis, and heavy-metal testing where exposure is suspected.

XXII. CONCLUSION

Mṛudbhakṣaṇa Janya Pāṇḍu represents a distinct Ayurvedic condition associated with habitual ingestion of soil and subsequent impairment of Agni, Doṣas, Srotas, and particularly Rasa-Rakta Dhātu. The clinical presentation demonstrates meaningful parallels with geophagia associated with iron-deficiency anaemia. In this illustrative case, a comprehensive Ayurvedic approach incorporating Nidāna Parivarjana, Dīpana-Pācana, Pāṇḍuhara, Raktavardhaka, and Rasāyana principles, together with dietary modification and counselling, was associated with improvement in clinical symptoms and haematological parameters. The concept of Gara Viṣa should not be used as a direct synonym for Mṛudbhakṣaṇa. Nevertheless, repeated consumption of environmentally contaminated soil may constitute chronic exposure to heterogeneous exogenous substances and can therefore be explored conceptually through Gara Viṣa and particularly Dūṣī Viṣa Siddhānta. This case illustrates the potential value of integrating classical Ayurvedic pathogenesis with objective haematological assessment while maintaining clear boundaries between classical interpretation and contemporary biomedical evidence.

XXIII. DECLARATION OF PATIENT CONSENT

For an actual submission, written informed consent must be obtained from the patient for publication of clinical information and incorporated according to the target journal's policy. The illustrative case data in this draft must not be represented as data obtained from an actual patient.

XXIV. FINANCIAL SUPPORT AND SPONSORSHIP

Nil.

XXV. CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

XXVI. AUTHOR CONTRIBUTION

The author contributed to conceptualization, clinical interpretation, literature review, manuscript preparation, and critical revision of the article.

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