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REVIEW ARTICLE

Pandu Roga in Classical Ayurveda: A Narrative Review of Etiopathogenesis, Clinical Features and Management

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Abstract

Pandu Roga is a classical Ayurvedic disease concept characterised principally by *Panduta* (pallor) and accompanied by weakness, fatigue, altered appetite and other systemic features. Although some manifestations overlap with those of anaemia, particularly iron-deficiency anaemia, the two arise from different diagnostic frameworks and cannot be considered equivalent without appropriate clinical and laboratory evaluation. This narrative review describes the classical understanding of *Pandu Roga*, including its *Nidana* (etiological factors), *Samprapti* (pathogenesis), *Purvarupa* (prodromal features), *Rupa* (clinical manifestations), *Upadrava* (complications), prognosis and traditionally described management. Classical Ayurvedic sources listed in the bibliography form the principal basis of this descriptive synthesis, supplemented by limited contemporary context concerning anaemia. The review summarises the involvement of *Pitta*, *Rasa* and *Rakta Dhatu, Agni* and associated *Srotas* within the Ayurvedic explanatory framework. Traditional descriptions of *Shodhana*, *Shamana* and *Pathya-Apathya* are presented as textual accounts rather than evidence of clinical efficacy. Anaemia has multiple causes, including nutritional deficiencies, blood loss, infections, inflammation and inherited conditions; diagnostic assessment and treatment must therefore address the underlying cause. The narrative approach and absence of systematic literature searching or formal evidence appraisal limit conclusions about comparative effectiveness. Classical descriptions may inform historical and conceptual understanding, but they do not establish that Ayurvedic interventions correct iron deficiency or improve clinical outcomes. Rigorous, appropriately controlled research with validated haematological endpoints and safety monitoring is needed.

Keywords: Anaemia, Iron deficiency, Nutritional deficiency, *Pandu Roga, Rasavaha Srotas.*

Introduction

Anaemia is a major public-health concern with diverse causes, including nutritional deficiencies, blood loss, infection, inflammation and inherited conditions. In classical Ayurveda, *Pandu Roga* is described through *Panduta* (pallor), weakness and other systemic features, with *Pitta, Rasa* and *Rakta Dhatu* and associated *Srotas* forming part of its traditional explanatory framework. Although some manifestations overlap with anaemia, the two belong to different diagnostic systems and must not be treated as automatically equivalent.[1-3] A careful comparison of these frameworks is particularly relevant because pallor and fatigue are non-specific manifestations shared by several haematological and systemic disorders. Modern diagnostic assessment relies on haemoglobin thresholds interpreted in context and where

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indicated, investigation of iron status and other causes of anaemia. Classical descriptions of *Ahara, Vihara* and treatment can be analysed as historical and conceptual material, but they do not establish the effectiveness or safety of an intervention in modern clinical practice.[4-6] The distinction has practical implications: iron-deficiency anaemia requires clinical assessment and laboratory confirmation and management depends on its cause and severity. Classical Ayurvedic accounts of emotional factors, dietary practices and clinical features can be considered alongside modern literature without asserting a one-to-one correspondence between disease categories. This narrative review therefore examines the classical aetiology, *Samprapti*, manifestations and management of *Pandu Roga*, while differentiating textual recommendations from demonstrated clinical benefits.[7-10]

Review Methodology

This targeted narrative review summarises classical descriptions of *Pandu Roga* using the online *Charaka Samhita* (*Chikitsa Sthana* 16) and *Sushruta Samhita* (*Uttara Tantra* 44), with selected contemporary guidelines, reviews and published clinical studies identified through publicly accessible scholarly and institutional records. Sources were selected for relevance to classical disease description, modern anaemia diagnosis, clinical research and safety. No systematic search, duplicate screening or formal risk-of-bias appraisal was conducted; the selection is not exhaustive. In Ayurveda, the nomenclature of disease holds profound significance. Each name is not arbitrary but is carefully derived from essential diagnostic criteria such as *Nidana* (causative factors), *Ruja* (pain or symptoms), *Samsthana* (structural involvement), *Varna* (color or appearance) and *Sthana* (site of manifestation). These parameters ensure that the terminology reflects both the clinical presentation and the underlying pathophysiology. By anchoring disease names in these criteria, *Ayurveda* provides a holistic framework that guides diagnosis, treatment, and understanding of the condition in relation to the body's *Doshas* and *Srotas*.

Utpatti and *Paribhasha*

"*Padi Gatau*" is the root of the term "*Pandu*." *Dhatu* means "*Gati*," or *Parinama*. *Pandu Varna* is the result of combining *Pita Varna* and *Shveta Varna*.

1. *Pandu Varna*, according to *Raja Nighantu*, is a combination of *Shukla* and *Pita Varna*.

Synonyms

Acharyas have suggested several synonyms that are mostly focused on colour when talking about *Pandu Vyadhi*, which include:

1. *Pandu*
2. *Lagharaka*
3. *Alasakshya*
4. *Panaki*
5. *Haridra*
6. *Kumbhava*

Nidana of *Pandu Roga*

Different types of *Pandu Roga Nidana* such as

1. *Aharaja Nidana*
2. *Viharaja Nidana*
3. *Manasika Nidana*
4. *Chikitsa Upachara Nidana*

Aharaja Nidana

1. *Rasa* includes *Amla, Lavana* and *Kshara*
2. *Ruksha, Ushna* and *Tikshna* are the three *Gunas*
3. *Ushna - Veerya*.
4. The *Dravya - Madya, Matsya, Amisha, Pistaa, Payah, Tila Taila, Vidagdhah Anna* and *Nishpava*.

S. NO.	*Hetu* (Cause)	Ch.S.	Su.S.	A.H.	H.S.
1.	*Mridbhakshanam*	+	+	-	-
2.	*Tikshna Atisevana*	-	+	+	-
3.	*Pitta Stanyapana*	+	-	-	-
4.	*Lavana Atisevana*	+	+	+	-
5.	*Nishpava Sevana*	+	-	-	-
6.	*Atyushna Atisevana*	+	-	+	-
7.	*Tila Taila Sevana*	+	-	-	-
8.	*Amla Atisevana*	+	+	+	-
9.	*Vishama Sevanam*	-	+	+	-
10.	*Viruddha Ahara Sevana*	+	-	-	-
11.	*Masha Sevana*	+	-	-	-
12.	*Kashaya Atisevana*	-	-	-	+
13.	*Vidagdha Bhojana*	+	-	+	-
14.	*Asatmya Bhojana*	+	-	-	-
15.	*Katuka Atisevana*	-	-	+	+
16.	*Pinyaka Sevana*	+	-	-	-
17.	*Kshara Atisevana*	+	-	-	-
18.	*Ruksha Atisevana*	-	-	-	+

Table 1: *Ahara Nidana* according to different *Samhitas*

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S. NO.	*Viharaja Hetu* (Lifestyle Cause)	Ch.S.	Su.S.	A.H.	H.S.
1.	*Atinidra* (Excess sleep)	+	-	-	-
2.	*Ativyayama* (Excess exercise)	+	+	+	-
3.	*Ativyavaya* (Excess sexual activity)	+	+	+	-
4.	*Atiayasa* (Excess exertion)	-	-	+	+
5.	*Amatisara Samgraha* (Suppression of diarrhoea)	-	-	-	+
6.	*Dushta Rakta Nigraha* in *Raktarsha*	-	-	-	+
7.	*Divasvapna* (Day sleep)	+	-	-	-
8.	*Ratri-Jagarana* (awake in night)	+	-	-	-
9.	*Ritu* changes	+	-	-	-
10.	*Sneha Atiyoga* (Excess oleation)	+	+	-	-
11.	*Vegadharana* (Suppression of natural urges)	-	+	-	-
12.	*Vegadharana* in *Vamana Karma*	-	-	+	-

Table 2: *Viharaja Nidana* of *Pandu Roga*

S. NO.	*Manasika Hetu* (Mental Cause)	Ch.S.	Su.S.	A.H.	H.S.
1.	*Bhaya* (Fear)	+	-	+	-
2.	*Chinta* (Anxiety/Worry)	-	+	+	-
3.	*Krodha* (Anger)	+	-	-	-
4.	*Kama* (Excess desire)	+	-	-	-
5.	*Shoka* (Grief)	+	-	-	-
6.	Emotional disturbance associated with attachment	+	-	+	-

Table 3: *Manasika Nidana* of *Pandu Roga*

Chikitsa Upachara Nidana

1. *Pancha Karma, Vaishamya*
2. *Vamana Virechana Vyapat*
3. *Atiyoga* of *Yapana Basti*
4. *Akala Sneha Prayoga*
5. *Snehapana Vibhrama*
6. *Grahi Oushadi Prayoga* in *Ama Atisara*
7. *Chardi Nigrahana*

Nidanarthakara Roga

Pandu may also be described in association with conditions involving *Rakta Dhatu Kshaya*.

1. *Rakta Gulma*
2. *Pleehodara*
3. *Asrugdhara*
4. *Arshas Purvarupa*
5. *Raktasrava*
6. *Rakta Pitta*
7. *Raktaarbuda*
8. *Dhamani Vyadha*
9. *Pureeshaja Krimi*

Purvarupa

Purvarupa of *Pandu Roga* provides a detailed account of the premonitory symptoms associated with *Pandu Roga*. Before the actual onset of the sickness, a person exhibits indications and has symptoms. These symptoms are called prodromal symptoms, or *Purvarupa*. Even when a complete clinical picture is not shown, some characteristics will emerge as a result of the ongoing pathogenic process. The *Purvarupa* of *Pandu* are:

1. *Avipaka*
2. *Akshikuta Shopha*
3. *Aruchi*
4. *Alpavahnita*
5. *Angasada*
6. *Gatrasada*
7. *Hridspandana*
8. *Mutrapitata*
9. *Mridbhakshanechchha*
10. *Panduta*
11. *Rukshata*
12. *Svedabhava*
13. *Shrama*

S. NO.	Symptom / Feature	Ch.S.	Su.S.	A.H.	H.S.
1.	*Rukshata* (Dryness)	+	-	+	-
2.	*Avipaka* (Indigestion)	-	+	-	-
3.	*Shrama* (Fatigue)	+	-	+	-
4.	*Mutrapitata* (Urinary changes)	-	+	-	-
5.	*Aruchi* (Anorexia)	-	-	+	-
6.	*Sthivanadhikya* (Excess salivation)	-	+	-	-
7.	*Hridspandana* (Palpitations)	+	-	+	-
8.	*Alpavahnita*	-	-	+	-
9.	*Mridbhakshanechchha* (Desire for clay eating)	-	+	-	-
10.	*Panduta* (Paleness)	-	-	-	+
11.	*Akshikuta Shopha* (Periorbital swelling)	-	+	-	-
12.	*Svedabhava* (Absence of sweating)	+	-	+	-
13.	*Varchapittatva* (Yellowish stool)	-	+	+	+

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14.	*Angasada* (Weakness of limbs)	-	-	+	-
15.	*Gatrasada* (General debility)	-	+	+	-

Table 4: *Purvarupa* of *Pandu Roga* according to different *Samhitas*

Samprapti

Dosha-Dushya Sammurchana is referred to as *Samprapti* (sequence of events that took place between the disease's onset and full expression) and the *Pandu Roga's Samprapti* can be analysed from two angles:[2]

1. *Samanya*
2. *Vishesha*

Samanya Samprapti

As a general pathology, the vitiated *Doshas* affect and vitiate the *Dooshyas* and *Srotas*. There is a commonality among all *Pandu* types.

Vishesha Samprapti

It is the specific pathophysiology by which the illness appears, according to the *Samanya Samprapti*. However, a certain aetiology that might intensify a particular *Dosha* has an important effect on the total *Samprapti* and causes a specific type of *Pandu*.

Samprapti

Samprapti is best understood by studying the following components

1. *Samprapti Ghataka*
2. *Samprapti Bhedah*

Samprapti Ghataka

Dosha

The *Pitta Dosha* is a crucial factor in the manifestation of *Pandu*, which is also caused by other *Doshas*.

Pitta

Pitta plays an important role in manifestation of *Pandu*. In addition, *Pitta* provides power and regulates bodily functions like *Trishna*, *Kshudha* and *Ushma*; it also governs higher mental processes like *Buddhi* and *Medha*. The following types of *Pittas* are most frequently impacted.

Pachaka Pitta

Pachaka Pitta helps with *Ahara Pachana* by breaking down *Ahara Rasa* into *Sara* (essence part) and *Kitta* (waste product) *Rasa*. Because it is seated inside *Grahani,* it gives *Grahani* and the other *Pittas* power. It carries out the functions of *Ayu, Varna, Prabha, Bala and Ojas*. *Nidana Sevana* vitiates this first *Pitta*, leading to *Agnimandya, Aruchi*, the potential *for Dhatu Shaithilya* and *Rasa Pradosha*.

Ranjaka Pitta

Rakta is created by the *Rakta Poshaka Sara Bhaga* of *Rasa* after receiving *Raga* from the *Ranjaka Pitta* along with its *Ushma*. When this *Ranjaka Pitta* is vitiated, *Rakta* is changed either quantitatively or qualitatively. *Rakta Kshaya,* outcome of this illness, raises *Mala Rupa Pitta* (the characteristic waste products or excretory features associated with *Pitta Dosha*)

Sadhaka Pitta

Sadhaka Pitta, which is found in *Rasavaha Srotomula*, is the other *Pitta* that is affected along with *Pachaka Pitta* (*Hridaya*). The development of *Pandu* is significantly influenced by the vitiation of this *Pitta*.

Kapha

In the pathophysiology of *Pandu Roga, Kapha* also has a significant part to play. An important contributing cause to *Pandu* is said to be an excessive intake of *Santarpana Karaka Nidana*. *Lakshanas* like *Panduta* are produced by *Kaphaja Vyadhi*. Even though the *Kapha* is in its *Prakrutavastha*, the lowered *Vata* pushes it and *Pandu* are caused by *Pitta* spreading to other body regions. In *Twacha*, *Kapha* creates *Swetavabhasata*. In *Rakta, Kapha* creates *Pandu*. According to these allusions from the classics, *Kapha*, who is an *Avalambaka* type, is actively involved in the pathogenesis of *Pandu*.

Avalambaka Kapha

Abnormal *Avalambaka Kapha* causes deranged *Hridaya Avalambana* and causes impaired action of the heart.

Vata

Vayu in *Hridaya* is in charge of how the vitiated Pitta spreads throughout the entire body via the *Dasha Dhamanis*. All of the *Gati* in the body are controlled by this *Vyana Vayu*.

Dhatu

Rasa Dhatu

Pandu is considered to be a *Rasa Pradoshaja Vikara*. According to *Chakrapani*, the *Rakta Poshaka Rasa's Kshapana* and *Anutpadana* are carried out by the vitiated *Pitta*. *Chakrapani* asserts that the vitiated *Pitta* performs the *Rakta Poshak Rasa Kshapana* and its *Anutpadan*. *Rasa Dhatu* is afflicted when *Pitta* affects *Agni*; this results in *Ama Rupa Rasa,* which disrupts the *Dhatu Poshana Parampara* and results in *Dhatu Shaithilya*.

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Rakta Dhatu

During *Samprapti*, the *Doshas* will create *Panduta* in the *Twacha* and vitiate the *Rakta Dhatu* (also known as *Raktamvidushya*. *Rakta Pradosha* or *Raktalpata* may both lead to *Pandu*. *Ojo Guna Kshaya* is also known as *Rakta Dhatu Rupa Oja Kshaya*. *Harita's* explanation of *Alpa Raktata* is *Nayati Rudhira Shosham*. *Pandu* is the result of excessive blood loss and *Artava Atipravritti*. We can infer from the above references that *Pandu* exhibits both *Dushti* and *Kshaya* of *Rakta Dhatu*. In the classical description of *Pandu Roga*, impairment and depletion of *Rakta Dhatu* are associated with loss of normal complexion, weakness and diminished vitality. These manifestations may also be discussed in relation to *Ojas*-related qualities; however, *Rakta Dhatu* and *Ojas* remain distinct concepts.

Mamsa Dhatu

In *Pandu Roga,* vitiated *Doshas* may affect *Mamsa Dhatu,* contributing to impaired tissue nourishment, weakness and loss of muscular strength. This involvement is understood within the Ayurvedic framework of *Dosha-Dushya Sammurchana* and *Dhatu Kshaya*.

Meda Dhatu

Alpa Meda Nissara indicates diminished excellence of *Meda Dhatu*, reflecting impaired tissue nourishment and reduced vitality within the Ayurvedic framework of *Dhatu Sara*.

Ojas

The characteristic referred to in the context of *Pandu* is *Ojo Guna Kshaya*. The term *Ojas* is said to have a wide variety of connotations. There are two different forms of *Ojas*, known as *Para and Apara Ojas*. In classical literature, *Ojas* is also used to refer to *Agni, Sarvadhatu Sara, Shukra, Rasa, Rakta* and *Prakruta Kapha*. The term *Ojo Kshaya* in this situation refers to *Apar Ojas Kshaya* because a specific *Dhatu Kshaya* was specified in the *Samprapti*.

Indriya

Classical accounts also describe disturbances of *Indriya* (sensory and functional capacities) in association with systemic debility. *Indriya* and *Karna Kshveda* and *Alpa Vaktwa* are examples of other *Indriya Gata*

Lakshanas

Twacha

The changes in colour result from *Twacha* becoming vitiated as well.

Manas

The manifestation of *Krodha* will have an impact on the mind.

Agni

Both in preserving health and in a diseased state, *Agni* plays a crucial function. *Agni* is referred to as life when it is operating normally, sickness when it is out of control, and death when it stops.

Agni is of 3 types:

1. *Jatharagni*
2. *Dhatvagni*
3. *Bhutagni*

Jatharagni

Pitta Kara and Vidahi are the causes of *Pandu*. These lead to an increase in *Pitta's Drava Guna*, which in turn causes *Jatharagnimandya* to further contribute to *Pandu Samprapti*. *Ama* is brought on by *Jatharagni Manda*.

Dhatvagni and *Bhutagni*

Jatharagni influences the functioning of *Bhutagni* and *Dhatvagni*. Impairment of *Jatharagni* may therefore disturb the proper transformation of *Ahara Rasa* and the nourishment of successive *Dhatus*. In the proposed *Samprapti* of *Pandu Roga*, this disturbance contributes to inadequate nourishment of *Rasa* and *Rakta Dhatus*, *Dhatu Kshaya* and diminished *Bala* and *Ojas*-related qualities.

Ama

Agnimandya may contribute to the formation of *Ama*, which is implicated in the pathogenesis of several disorders. In *Pandu Roga*, impaired *Agni* and disturbed *Dhatu Poshana* are considered relevant components of the proposed *Samprapti*.

Srotas

Rasavaha and *Raktavaha* are significant *Srotas* that are impacted in *Pandu*.

1. Rasavaha Srotas

A *Rasa Pradoshaja Vikara* is *Pandu*. The first organ affected by *Agnimandya* in *Pandu* is *Rasa Dhatu*, and the body's *Prakupita Pitta*, which includes *Sthanasamshraya* in *Hridaya* (*Mula Sthana*), is dispersed by *Dashadhamanis* to cause a number of *Rasavaha Srotodushti Lakshanas*, including:

1. *Hridrava*
2. *Hridaya Spandana*
3. *Tama*
4. *Aruchi*
5. *Agninasha*

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6. *Jwara*
7. *Angasada*
8. *Panduta*
9. *Shrama*
10. *Trishna*

Consequently, when *Preenana Karma is* impacted, *Rasa Kshaya* and even another *Dhatu Kshaya* are produced.

2. *Raktavaha Srotas*

Pliha and Yakrit are both *Raktavaha Srotomula*. *Yakrit and Pliha* are where *Rasaranjana* occurs. *Rakta* is improperly formed when *Rasa Dhatu* is improperly formed. *Sadhaka* and *Ranjaka Pitta* are also impacted in addition to *Pachaka Pitta*. These vitiate *Raktavaha Srotas*, which results in *Rakta Kshaya*.

Udbhava Sthana

Dosha becomes vitiated as a result of etiological factors, and the area where they grow is known as an *Udbhava Sthana*. *Pandu* reaches *Hridaya* (*Srotomula*), an *Amashaya Samuttha Vyadhi*, when the *Doshas* are distributed throughout the entire body.

Sanchara Sthana

It all relies on the path taken by the *Doshas* once they have extended from the *Udbhava Sthana*. This determines the disease specifically and its systemic involvement. The *Nidana Sevana* and the state of the system both have a role in this decision. *Sanchara* in *Pandu* is done via *Dasha Dhamanis*.

Ashraya

The *Doshas* in *Pandu* occupy the space between the *Twak and Mamsa,* vitiating various *Dhatus* and giving rise to various *Varnas*.

Avayava

The *Doshas* spread throughout the body after being initially localised, impacting various bodily areas involved in this are all *Angas*.

Effect of *Dosha-Dushya Sammurchana*

Dhatu Shaithilya

Rasa and other *Dhatus* are impacted by the illness process after *Agni* is involved, ultimately leading to *Dhatu Kshaya* and *Ojo Kshaya*. *Dhatu Gaurava* reduces the capacity of the *Dhatus* to function as a result of poor *Dhatu Upachaya*.

Varna Kshaya

Varna Prasadana is caused by *Pitta Dosha* and *Rakta Dhatu*. A *Vyadhi* named *Pandu* is distinguished by a specific skin discoloration that is described in detail.

Samprapti Bheda of *Pandu*

1. *Samkhya Samprapti*

- *Pandu* comes in five different types (According to *Charaka* and *Vagbhata)*
- Four types of *Pandu* (According to *Sushruta)*
- *Pandu* comes in five different types (According to other authors)

S.NO.	Type/ Condition	Ch. S.	Su. S.	A. H.	A.S.	M. N.	B. P.	Y. R.	Sh. S.	G. N.	K. S.	H. S.
1.	*Vataja*	+	+	+	+	+	+	+	+	+	+	+
2	*Pittaja*	+	+	+	+	+	+	+	+	+	+	+
3.	*Kaphaja*	+	+	+	+	+	+	+	+	+	+	+
4.	*Sannipataja*	+	+	+	+	+	+	+	+	+	+	+
5.	*Mridbhaksha (Clay eating)*	+	-	+	+	+	+	+	+	+	+	+
6.	*Shakhasrita Kamala*	-	-	-	-	-	-	-	-	-	-	+
7.	*Koṣṭhasrit Kamala*	-	-	-	-	-	-	-	-	-	-	+
8.	*Halimaka*	-	-	-	-	-	-	-	-	-	-	+

Table 5: Classical Classification of *Pandu Roga* and related conditions across ayurvedic texts

2. *Vidhi Samprapti*

Svatantra Pandu Roga is often *Kashta Sadhya* while *Partantra Pandu Roga* is *Sadhya*.

3. *Vikalp Samprapti*

Under the heading of the *Pandu Samprapti Ghataka*, the *Samprapti's Amshamsha Kalpana* is treated separately.

4. *Pradhanya Samprapti*

Within the classification of *Pradhanya Samprapti, Pitta Anubandha Tridosha* serves as the *Pradhana Dosha*. In this framework, *Swatantra Pandu* is classified as the *Pradhana* (primary) condition, while *Pandu* can also present as an *Apradhana Nidanarthakar Roga*.

5. *Bala Samprapti*

Whether the *Nidana, Purvarupa* and *Rupa* are fully or partially visible determines *Pandu Roga Bala*, or power. The *Bala* is bigger when they manifest fully than when they do so in part. Treatment for *Pandu* with *Upadrava* and *Asadhya Lakshanas* is challenging.

6. *Kala Samprapti*

The *Samprapti* or *Bala*, that caused the disease or made it worse over time, such *Aho-Ratra* etc., or in line with phases of digestions, is what proves the involvement of a specific *Dosha* in a disease. Classical accounts describe variation in clinical features according to the predominance of *Doshas*. *Shrama* that increased with exercise and in *Sandhya Kala*.

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Vishesha Samprapti

1. *Vataja Pandu*

The formation of *Pandu Roga* is caused by etiological causes that primarily enhance *Vata* along with *Pittadi Doshas* and *Vata* creates *Vataja Pandu*.

2. *Pittaja Pandu*

Pittaja Pandu is a result of etiological causes that primarily elevate *Pitta* along with another *Dosha*.

3. *Kaphaja Pandu*

The development of *Pandu Roga* with *Kapha Anubandha* is caused by etiological factors that primarily enhance *Kapha* coupled with *Pittadi Doshas*, resulting in *Kaphaja Pandu*.

4. *Tridoshaja Pandu*

Tridoshaja Pandu is produced as a result of an etiological cause that simultaneously raises all three *Doshas*.

5. *Mridbhakshanajanya Pandu*

Depending on the type of *Mrid*, someone accustomed to consuming it is likely to have *Dosha* aggravation. The *Mrid* aggravates *Vayu* if it is of the *Kashaya Rasa* variety. *Pitta* becomes inflamed if it is *Ushna* and *Kapha*, if it is *Madhura*. The food's *Rasa* and ingredients turn into *Rukshata* due to the *Ruksha Guna* in the *Mridika*. If the food is not digested, *Pandu Roga* results from the production of *Agninasha, Teja, Veerya, Oja, Varna*, *Hani* to the *Indriya Bala* and *Avarodha* of *Srotas*.

Rupa

Rupa describes the signs and symptoms that exist at the moment the disease first appears. Once *Dosha Dushya Sammurchana* is complete and the ailment has fully developed with all of its symptoms; the disease enters this stage. *Rupa* may show all of the usual symptoms or just a few, depending on how rapidly or slowly the disease progresses. Some might appear out of nowhere, while others might disappear.

Samanya Lakshana

1. *Panduta*

Pandu is described as *Pandu Roga's Pratyatma Lakshana*. The term *Pandu* refers to the body parts' discoloration. *Rasa Pradosha* is to blame for this.

2. *Alpa Raktata*

Includes a reduction in both quality and quantity. *Rakta* has anatomically eight *Anjalis* in the body. *Pitta*, which is responsible for producing *Rakta Poshaka Sara* properly from *Rasadhatu*, also produces *Prakrita Rakta*. This is effectively changed to *Rakta* by *Ranjaka Pitta*. *Shareera Vaivarnya* and *Twacha Rukshata* are caused by *Alpa Raktata*.

3. *Daurbalya*

Bala reduction, as determined by *Vyayama Shakti* for the *Prakruta Bala*. In *Pandu*, it falls because of *Dhatu Kshaya*.

4. *Karshya*

Emaciation of *Spik, Udara*, and *Greeva* as well as the prominence of *Dhamani Jala* result from the reduction of various *Dhatus* in the body, which causes *Samhanana* to become afflicted.

5. *Karna Kshveda*

One of the *Vataja Nanatmaja Vyadhis*, aggravated *Vata* creates this symptom. as a result of debility in the sense organs.

6. *Gatra Peeda*

Vata Vriddhi, which is brought on by *Dhatu Kshaya*, causes different kinds of discomfort to be experienced in various places of the body.

7. *Sthivana* and *Shunakshi Kuta Shotha*

They indicate that the *Purvarupa* stage will continue. In addition to producing *Srotorodha*, *Kapha Vriddhi* also causes *Shunakshi Kuta Shotha*.

8. *Sheerna Lomata*

Occurs as a result of *Asthi Dhatu Kshaya*.

9. *Hridrava*

Dosha of *Hridaya* include *Vyana Vayu, Sadhaka Pitta* and *Avalambaka Kapha*. They together with the *Raktavaha Srotas* are responsible for *Hridaya's* increasing *Gati*.

10. *Arohana Aayasa*

Exertional dyspnoea is brought on by *Dhatu Kshaya* and *Daurbalya*. Even *Hridaya* or *Pranavayu Prakopa* debility might lead to the development of *Shvasa*.

11. *Bhrama*

Bhrama is produced through *Vata-Pitta-Rajogunadhikya*, which results in a number of *Dhatu Kshaya*, including *Majja* and *Rakta*.

12. *Annadwesha*

In the *Samanya Lakshana*, Charaka referenced both *Annadwesha* and *Aruchi*. This is something that Sushruta mentions in the *Upadrava* stage and is brought on by *Agnimandya* and *Kapha Vriddhi*.

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13. *Gaurava*

Refers to a subjective sensation of heaviness, which may be associated with *Kapha* predominance or *Ama*.

14. *Jwara*

It shows *Pitta Prakopa*.

15. *Harit Varna*

Represents *Pitta Vridhi*.

16. *Hataprabhatva*

Ojakshaya causes *Pitta Prakop* and *Prabha Hani*.

17. *Shvasa*

Additionally, *Shvasa* is stated in *Samanya Lakshana*. *Arohana Ayasa*, also known as *Kshudra Shvasa* (exertional dyspnoea), is mentioned there. However, in the *Upadrava* stage, *Kshudra Shvasa* or another severe variant of *Shvasa* is in a severe state.

Vishesha Lakshana

Vataja Pandu

Vata Vridhi creates a variety of *Vataja Lakshanas* of *Pandu Roga,* including *Arunangata* of body parts, *Krishna Panduta,* and numerous *Shula* kinds.

Pittaja Pandu

Pitta Vriddhi creates a variety of *Pittaja* presentations, including *Haritabhata, Jwara* and *Peetabhata*.

Kaphaja Pandu

Numerous *Kaphaja* manifestations, including *Suklavarnata*, *Gaurava* and *Shvayathu* are produced by *Kapha Vriddhi*.

Tridoshaja Pandu/Sannipataja Pandu

In classical descriptions, the simultaneous aggravation of all three *Doshas* (*Tridosha Prakopa*) produces a complex and severe clinical picture. The profound *Dhatu Gaurava* (heaviness of tissues) and *Dhatu Shaithilya* (tissue laxity) make this presentation potentially difficult to manage, and it is often labelled as *Asadhya* (incurable). Harita provides a thorough explanation of *Sannipataja Pandu Lakshana*, which includes *Tandra* (stupor), *Alasya* (lethargy), *Hrullasa* (nausea), *Kasa* (cough), *Shotha* (edema), *Jwara* (fever), *Moha* (delusion) and *Trishna* (excessive thirst).

Mridbhakshanajanya Pandu (*Pandu* due to Clay Eating)

While some texts treat it as a distinct fifth type, Sushruta classifies *Mridbhakshana* (clay eating) under *Tridoshaja Pandu* because the habit provokes all three *Doshas*. *Madhavakara* explicitly regarded *Mridbhakshana* as a direct *Vyadhi Hetu* (causative factor). This specific etiology leads to distinct complications, including *Kshaya* (emaciation), *Shotha* (edema), *Dhatu Daurbalya* (tissue weakness), loss of *Indriya-Teja-Bala* and *Ojas*, severe *Rukshata* (dryness) of the body, and the potential development of *Krimi* (intestinal worms).

Upadrava

The complication arises out of the original signs and symptoms either in a grievous manner or as a violent form. If the disease is not treated then the following complications may arise. *Aruchi* (anorexia), *Pipasa* (thirst), *Chhardi* (vomiting), *Jwara* (fever) *Agnisada* (dyspepsia) *Murdha-Ruja* (headache), *Kanthagata Shotha* (swelling in throat), *Abalatva* (weakness), *Murchha* (fainting) *Klama* (fatigue) *Hridaya Pidana* (pain in cardiac region) *Shvasa* (breathlessness) *Atisara* (diarrhoea) *Kasa* (cough), *Swarabheda* (alteration of voice or hoarseness).[2,3]

Sadhya- Asadhyata

The following features are described in classical Ayurvedic texts as indicating an unfavourable prognosis or *Asadhyata* in *Pandu Roga*:[2,3]

1. *Chirotpanna*: A *Pandu* disease with a longer history.
2. *Rukshata* (*Khaributa*) - The patient exhibits severe dryness.
3. When the disease's *Kalaprakarsha* causes the patient to have *Shotha*.
4. If the *Alpha* or *Baddha Vit Pravrutti*.
5. The patient perceives objects as *Peetadarshi* (yellow).
6. *Sakapha Mala Pravrutti* and *Atisara* of *Haritavarna* are present.
7. *Deenata*.
8. *Shwetatidigdhabha*
9. When suffering from *Chardi, Murchha* or *Trishna*.
10. *Pandu, Shwetavabhasa* as a result of *Ati Asruk Kshaya*
11. Emaciation of the trunk and *Shotha* in *Anga* (extremities)
12. *Shotha* in the trunk and *Anga's* wasting (extremities)
13. *Shepha, Mushka* and *Shotha* in *Guda Pradesha*.
14. *Tamah Praveshah*
15. *Sangnyaahani*
16. *Jwarah* and *Atisar*
17. *Panduta* of *Pandudarshi* and *Dantah-Nakh-Netrah*
18. *Tridoshaja Pandu Rogi, Indriya Daurbalya* and *Mlanata*
19. *Pandu* complications are either incurable or difficult to treat.

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Arishta Lakshana

The term "*Arishta Lakshanas*" refers to the warning signs and symptoms that death is imminent. The disease *Pandu's Arishta Lakshanas* are:

- *Varnaadhikyata Pandu*
- *Ati Krish*
- *Trisha*
- *Uchwasa Kupitha*

Chikitsa

Samya of *Doshas* and *Dhatus* is attained by either *Shodhana* or *Shamana*. *Shodhana* and *Shamana* are the line of treatments that are mentioned for the disease *Pandu*.[2,3]

Treatment of *Pandu* can be categorised as

1. *Shodhana*
2. *Shamana*

1. *Shodhana*

Classical texts describe *Snehana* and, where appropriate, *Mridu Swedana* (mild fomentation) as preparatory measures (*Purvakarma*) before *Shodhana* (purification) procedures. Such descriptions provide historical context and should not be read as routine clinical recommendations for patients with iron-deficiency anaemia. While classical accounts mention *Vamana* (emesis) followed by *Virechana* (purgation) as the principal *Pradhana Karma* for selected presentations, these procedures require individual clinical assessment and cannot be broadly recommended for anaemia on the basis of this narrative review.

a. *Snehana* (Oleation)

In *Pandu Roga,* the body's *Sneha* (unctuous) quality is drastically diminished, resulting in predominant *Rukshata* (dryness) due to *Alpa Raktata, Alpa Medaskata* and *Ojo Kshaya*. *Snehana* is administered to counter this dryness and to mobilize the *Doshas* lodged in the *Shakhas* (peripheral tissues), bringing them back to the *Koshtha* (gastrointestinal tract) for expulsion.

b. *Swedana* (Fomentation)

While intense *Swedana* is contraindicated in *Pandu Roga, Mridu Swedana* may be used. *Shodhana* is then performed to completely expel the mobilized morbid *Doshas* and counteract *Dosha Bahulyata* (abundance of *Doshas*). Depending on the clinical circumstance, the *Brihatrayee* texts permit either upward (*Urdhva*) or downward (*Adho*) *Shodhana*.

2. *Shamana*

Following *Shodhana*, *Shamana Aushadha* (pacifying therapies) and *Pathya* (dietary regimens) are initiated. Classical Ayurvedic texts describe several herbal, mineral and herbomineral preparations, including formulations containing *Loha* and *Mandura*, for the management of *Pandu Roga*.

Pathya and *Apathya*

It includes a list of different foods and other routines that a person with *Pandu* should adhere to in order to recover from their illness. The following are the *Pandu Roga Pathya-Apathya*.

S.No	*Varga* (Category)	Examples
1.	*Suka Dhanya Varga*	*Godhuma, Purana Shali, Purana Yava*
2.	*Shami Dhanya Varga*	*Mudga*
3.	*Mamsa Varga*	*Matsya, Jangal Mamsa*
4.	*Shaka Varga*	*Punarnava, Nagakeshara, Guduchi, Patol, Kushmand, Jivanti, Bimbi, Dronahpushpi*
5.	*Phala Varga*	*Abhaya, Dhatri, Badar Phala*
6.	*Ikshu Varga*	*Ikshu Rasa*
7.	*Goras Varga*	*Navanita, Takra, Ghrita*
8.	*Mutra Varga*	*Gomutra*
9.	*Madya Varga*	*Sauviraka, Tushodak*
10.	*Kritanna Varga*	*Yusha*
11.	*Other Dravya*	*Yava-Kshara, Lauhbhasma, Chandan, Haridra*

Table 6: *Pathya Ahara*

Karma

Abhyanga, Vamana and *Virechana*.

Apathya

It outlines foods and other things that *Pandu Rogi* should avoid in order to regulate the sickness.

a. *Ahara*

Apathya Ahara in *Pandu Roga*

1. *Rasa*: *Lavana, Katu, Kshara, Amla*
2. *Anna*: *Asatmya Bhojan, Viruddha Bhojan*
3. *Jal-Jalapana Dushita, Adhika Ambupana*
4. *Kritanna Varga-Pinyak*
5. *Shami Dhanya Varga-Masha, Nishpava, Kulattha, Tila*
6. *Sneha Varga-Tila Tail*
7. *Goras Varga-Dadhi, Mastu*
8. *Madya Varga-Shaktu*
9. *Ahara Varga-Hingu, Tambul, Teekshna Dravya* (similar to *Maricha, Vidahi, Ati-ushna Dravya)*
10. *Anya Dravya-Mridtika*

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b. *Vihara*

Ati-Vyayama, Ati-Vyavaya, Atapa Atisevan and *Agni, Krodha, Atimarga Gamana.*

c. *Karma*

Vamana Vega Dharana, Dhumapana, Swedana, and *Rakta Sruti*.

Discussion

Published clinical investigations have evaluated *Trikatrayadi Lauha* in children,[11] *Punarnava Mandura* in older adults,[12] *Amalaki Rasayana,*[13] *Dhatrilauha* in pregnancy,[14] *Opuntia elatior*[15] and two paediatric Ayurvedic formulations,[16] a subsequent case report also describes Ayurvedic management of *Pandu.*[17] These studies demonstrate that clinical research exists, but their heterogeneous interventions, study designs, sample sizes and outcome measures do not permit a general conclusion that all classical *Pandu* treatments are effective or superior to established anaemia management. This narrative review does not constitute a systematic appraisal of these trials.

Safety requires particular attention for mineral-containing products: analytical investigations have identified potentially toxic metals in some marketed Ayurvedic preparations, underscoring the need for validated manufacturing standards, product testing and clinical monitoring.[18,19] Contemporary reviews also emphasise cause-specific investigation and treatment of iron deficiency rather than assuming that all anaemia is nutritional or that symptomatic improvement establishes iron repletion.[20]

The classical description of *Pandu Roga* encompasses pallor, weakness and diverse systemic manifestations within the Ayurvedic framework of *Dosha, Dhatu, Agni* and *Srotas*. Some features overlap with anaemia, but clinical resemblance does not establish a shared pathophysiology. Anaemia may result from iron deficiency, other nutritional deficiencies, blood loss, infection, inflammation or inherited conditions, and its evaluation requires appropriate clinical and laboratory investigation. Traditional descriptions of *Shodhana*, *Shamana* and *Pathya-Apathya* should be interpreted as classical therapeutic accounts, not as proof of efficacy or superiority over established treatment. In particular, there is insufficient evidence in this review to recommend purgative procedures or herbomineral preparations for children, pregnant patients, older adults or patients with severe anaemia. Claims of sustained clinical benefit require controlled studies and systematic safety evaluation.[1-3]

Limitations and Evidence Gaps

This narrative review did not employ a documented systematic database search, duplicate screening, formal quality appraisal or a structured synthesis of contemporary trials. Its coverage may be incomplete; the classical source comparisons and their edition-specific locations require author verification. Consequently, the article cannot establish comparative treatment efficacy or safety.

Clinical Safety Considerations

Vamana, Virechana and herbomineral preparations are described in classical sources, but their efficacy and safety for laboratory-confirmed anaemia are not established by this review. Any contemplated intervention requires assessment by an appropriately qualified clinician, product-quality assurance, informed consent and monitoring. Special caution is necessary in pregnancy, childhood, frailty, major comorbidity and severe anaemia. Evaluation and indicated conventional treatment should not be delayed.

Conclusion

Pandu Roga is a classical Ayurvedic disease concept whose manifestations may overlap with those of anaemia. The traditional framework of *Nidana*, *Samprapti*, clinical features and management provides descriptive historical context but does not establish diagnostic equivalence with iron-deficiency anaemia or the efficacy of Ayurvedic treatment. Diagnosis and management of anaemia must be based on its underlying cause. Future clinical research should use validated laboratory outcomes, appropriate comparison groups and explicit safety monitoring.

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Data Availability

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Author Contributions

A.A.: Conceptualization, Methodology, acquisition of data and interpretation of data, Writing: review & editing. U.R.S.: Supervision, Writing review and editing.

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