

## REVIEW ARTICLE ON PANDU ROGA WITH SPECIAL REFERENCE TO IRON DEFICIENCY ANAEMIA

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### ABSTRACT

*Pandu Roga* is a well-described disease entity in Ayurveda characterized predominantly by pallor of skin and mucosa, weakness, fatigue, and reduced vitality. The clinical manifestations of *Pandu Roga* closely resemble Iron Deficiency Anaemia (IDA), which is one of the most prevalent nutritional disorders worldwide. In *Ayurveda*, Pandu is considered a *Pitta- pradhana Tridoshaja Vyadhi* involving mainly *Rasa* and *Rakta Dhatu*. Improper dietary habits, impaired digestion (*Agnimandya*), and vitiation of *Doshas* lead to defective formation of *Rakta Dhatu*, resulting in *Panduta* (pallor). Modern medicine defines iron deficiency anaemia as a condition characterized by decreased hemoglobin concentration due to insufficient iron availability. This review aims to analyse the etiopathogenesis, symptomatology, diagnosis, and

management of *Pandu Roga* in correlation with iron deficiency anaemia using both *Ayurvedic* and modern perspectives. The review also highlights Ayurvedic therapeutic approaches including *Nidana Parivarjana*, *Shodhana*, *Shamana Chikitsa*, and *Rasayana* therapy.

**KEYWORDS:** *Pandu Roga*, Iron Deficiency Anaemia, *Ayurveda*, *Rakta Dhatu*, *Agnimandya*, *Panduta*.

## INTRODUCTION

Anaemia is a major public health concern affecting children, adolescents, pregnant women, and adults globally. Iron deficiency anaemia is the most common type, resulting from inadequate iron intake, poor absorption, chronic blood loss, or increased physiological demand. According to *Ayurveda*, *Pandu Roga* exhibits similarities with anaemia because of common symptoms such as pallor, fatigue, weakness, dyspnea, and diminished strength. The aetiology, types, symptoms, complications and treatment of *Panduroga* has been mentioned in *Atharvaveda*, *Mahabharata*, *Charaka Samhita*, *Sushruta Samhita*, *Astanga Hridaya*, *Astanga Sangraha*, *Madhava Nidana*, *Chakradatta*, *Bhava Prakasa Samhita*.

### *Atharvaveda*

This fourth and last *veda* of Indian literature gives information about *Kamala* (Jaundice) in the name of *Harima* or *Panduroga* (*Kamala* is the sequelae of *Panduroga*) with literal meaning of "Yellowishness".

### *Mahabharata*

As narrated in *Mahabharata* the father of Pandavas was born Pale because, his mother *Ambalika* became quite Pale with fear when in private with the sage *Vyasa* and named as *Pandu* (*Panduraja*) because of his Pale complexion.

### *Charaka Samhita*

In its *Panduroga Chikitsadhikara* (16<sup>th</sup> Chapter) of *Chikitsa Sthana Panduroga* has been described. Excessive intake of *Kshara* (alkaline), *Amla* (sour), *Lavana* (salty), *Ushna* (hot), *Viruddha* (incompatible) and *Asatmya* (unsuitable) food, excessive use of *Nishpava* (*Dolichos lablab* Linn.), *Masha* (black gram), *Tila* (*Sesamum*) and its oil etc. And in addition, *Divasvapna* (day sleep), exercises and sexual intercourse during the digestion of food and lack of proper management of evacuative measures, seasons and suppression of natural urges (sexual desire, anxiety, fear, anger and grief), have been mentioned as causative factors.

### *Sushruta Samhita*

*Acharya Sushruta* had also given details of *Panduroga* in *Uttara Tantra* (44th chapter). He has given some synonyms viz. *Kamala*, *Apanaki*, *Kumbhahvaya*, *Lagharaka* (or) *Laghavaka*, and *Alasaka* (or) *Alasakhya* along with four, types of *Panduroga*. *Purvarupas* include *Tvak sphotana* (cracks in the skin), *Stheevana* (excessive salivation), *Prekshana kutha sotha* (swelling of the eyelids), yellowness of urine and feces and *Mandagni* (indigestion (44/5,6)

There is lot of similarity regarding *Nidana Samprapti* (aetiopathogenesis), symptoms of Panduroga mentioned by Charaka and Sushruta. Panduroga is incurable if the patient presents with swelling in upper and lower limbs, face, scrotum, anus and abdomen, fever, diarrhoea and if lying in a sub commatose state. (Uttara Tantra 44/42).

### ***Ashtanga Sangraha***

Vridha Vagbhata the author of this classic has followed Charaka and Sushruta while mentioning Panduroga and its types, symptoms, treatment etc. He had also prescribed Lauha and Mandura for Panduroga. According to him Sopha (swelling) is the main Upadrava. Kamala, Kumbhakamala and Lodh ara / Halimaka are also mentioned in this classic. (Chikitsa Sthana, 8/6 7; Nidana Sthana, 13/17-21).

### ***Ashtanga Hridaya***

Panduroga with its Nidana Samprapti, types symptoms and treatment have been described by Vagbhata in Nidana & Chikitsa Sthanas (13th and 16th chapters respectively) in the same lines as in Charaka and Sushruta Samhitas. He had also given stress that, if Pandurogi consumes Katu (Pungent) and Ushna (hot) substances he may suffer from Kamala (Jaundice) and if it is untreated swelling will develop, then it is called Kurnbha Kamala. It is treatable but with lot of difficulty. Halimaka (Lodhar or Alasa) has also been described by him. Again, Lauha and Mandura are found prescribed by Vagbhata (Chikitsa Sthana 16/14, 15, 16-19)

### ***Madhava Nidana***

Madhavakara, the writer of Madhava Nidana had explained Nidana Samprapti of Pandu as like as Charaka and Sushruta. He also agreed that Kamala is the sequelae of Panduroga. According to him 6 Kumbhakamala presents with Kamala, swelling and pain in joints. Halimaka (chlorosis) is caused by Vata and Pitta doshas mainly. Jwara (fever), Angamarda (Pain in the body), Bhrama (giddness) Tandra (drowzines) and Dhatu Kshaya (emaciation of the body) are the symptoms (8/22-23).

### ***Chakradatta***

Chakrapani Datta had given valuable treatment for Panduroga. Which contain preparations with Lauha bhasma, Mandura along with several other herbal drugs, for example, Haritaki Prayoga, Ayastiladi modaka, Mandura Prayoga, Navayasa, Churna, Vidangadhya louha. There is none more useful advice for a person who is suffering from Panduroga, i.e. he

should take milk boiled in iron vessel for a week and he should keep on having wholesome diet. (Panduroga Chikitsa 8/5-7; 8/22, 9112 & 34).

### ***Bhava Praksha Samhita***

In this, description of Panduroga with its Nidana Samprapti, types, symptoms treatment etc is found. (Chikitsa Prakarana, 8th Chapter) as in Charaka Samhita etc. Use of Mandura, and Lauha Bhasma is also seen (8/30 - 34; 35-38; 41). Acharya Charaka had Described five (5) types of panduroga according to doshas 1) Vataja, 2) Pittaja, 3) Kaphaja, 4) Sannipataja (Tridoshaja) and 5) Mritbhakshanajanyaja.

#### ***1) Vataja Panduroga***

Present with Pandutva (paleness), Ruksharunangata (roughness of the body), Ruja (Pain), Toda (Piercing Pain), Kampa (trembling), Angamarda (body ache), Varchahsoshha (dryness of stools), Vairasya (distaste in the mouth), Parshvasirorujah (Pain in sides of head), Sopha (oedema), Anaha (hardness in bowel) and Balakshaya (debility).

#### ***2) Pittaja Panduroga***

Presents with Pita (yellow), Murcha (fating), Pipasa (thirst), Pita Mutra (yellowish urine) Harita (greenish tinge), Jvara (fever) Daha (burning sensation), Chardi (vomiting) and Pita Shakrut (yellowish stools) and Patient with Pittaja Pandu perspires profusely, may have desire for cold and aversion to food. Pungency in mouth, hot and sour things do not suit in pittaja panduroga "Amla Udgara (acid eructations), Tama (feeling of darkness), Daurbalya (debility) are also seen.

#### ***3) Kaphaja Panduroga***

Presents with Gauravam (heavyness), Svetavabhasata (whitish complexion), Praseka (excessive Salivation), Tandra (drowsiness), Chardi (vomiting), Lomaharsha (horripilation), Sad a (malaise), Klama (exhaustion), Svasa (dyspnoea), Murcha (fainting), Bhrama (giddiness), Kasa (cough), Aruchi (anorexia), Vaksvaragraha (obstruction in speech and voice), Shukla mutra (whitish urine), Alasya (lessitude), Shukla Akshi (whitish eyes), Shukla Varchasa (whitish stools) and desire for pungent, and hot things, Svayathu (swelling), Madhurasya (sweetness in mouth) etc.

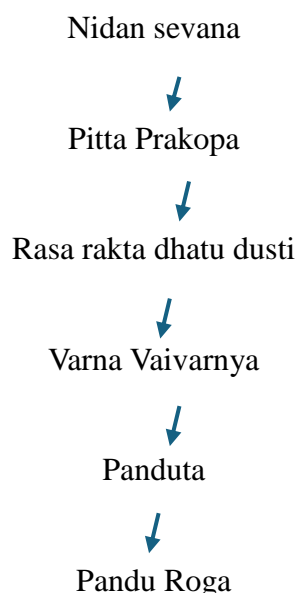
#### 4) *Tridoshaja- Sanni Pataja*

All doshas get vitiated and cause *Panduroga*, which presents with all the above-mentioned symptoms (*Vataja*, *Pittaja* and *Kaphaja*) and it is said to be very troublesome.

#### 5) *Mritbhakshana Janyaja*

It is due to habit of eating earth. *Kashayarasa* (astringent) of earth vitiates *Vata*, *Kharaguna* and *Ksharaguna* (rough and alkaline) vitiates *Pitta*, and *Madhura rasa* (sweet taste) vitiates *Kapha*. In addition to this, earth obstructs the *srotas* without undergoing any change and destroys *bala*, *ojas* etc. and produce *Panduroga*, which further destroy the *Varna*, *Bala* and *Agni* of the man. Patients may suffer from swelling in cheeks, orbits, feet, navel, and genital parts, as well as *krimiroga* and *Atisara* with blood and mucus. (Chikitsa Sthana 16/1 7-30).

### Samprapti



### Pathogenesis of Iron Deficiency Anaemia

Iron Deficiency Anaemia (IDA) develops gradually due to inadequate iron availability for hemoglobin synthesis.

#### 1. Negative Iron Balance

Iron deficiency begins when

- Iron intake is insufficient
- Iron requirement increases (pregnancy, growth)
- Iron loss increases (menorrhagia, gastrointestinal bleeding)
- Iron absorption decreases (malabsorption disorders)

This creates a negative iron balance in the body.

## 2. Depletion of Iron Stores

Initially, stored iron is depleted.

- Ferritin levels decrease
- Bone marrow iron stores reduce
- Hemoglobin may still remain normal in early stages

This stage is called iron depletion.

## 3. Iron-deficient Erythropoiesis

As deficiency progresses

- Insufficient iron becomes available for erythropoiesis
- Hemoglobin synthesis decreases
- Laboratory findings:
  - Serum iron ↓
  - Ferritin ↓
  - Transferrin saturation ↓
  - Total iron binding capacity (TIBC) ↑

## 4. Defective Hemoglobin Synthesis

Reduced hemoglobin formation produces red blood cells that are:

- Small in size (microcytic)
- Pale in color (hypochromic)

## 5. Tissue Hypoxia

Due to reduced hemoglobin concentration

- Oxygen carrying capacity decreases
- Tissue hypoxia develops

## Correlation Between Pandu Roga and Iron Deficiency Anaemia

Ayurvedic Concept	Modern Correlation (Iron Deficiency Anaemia)
Panduta	Pallor
Daurbalya	Weakness
Agnimandya	Poor metabolism/appetite
Rakta Dhatu Kshaya	Reduced hemoglobin/RBC
Pitta Dushti	Altered hematopoiesis
Shrama	Fatigue

Both conditions involve defective blood formation and reduced tissue nourishment.

## TREATMENT

In the context of treatment part of Panduroga, Charaka had clearly mentioned that it should be treated according to dosha because of the specific Hetu (aetiology) (Chikitsa Sthana 16/1123). The principle for treatment of the curable 'Panduroga' is that, initially, unction should be given to the patient. Then give strong emesis and purgation. While in Kamala mild purgation with bitter drugs after the unction are advised. After evacuation both types of cases should be managed with Pathyanna (wholesome diet) such as old salirice, Yava (barley) and Godhuma (wheat) with soups of Mudga (green gram), Adhaki (pigeon pea), Masura (lentils) or meat soup of animals and birds. Uction should be given with Panchagavya ghrita, Mahatiktaka ghrita or Kalyanaka ghrita i.e. in both Panduroga and Kamala (Chikitsa Sthana 16/39-43). While treating the Mritbhakshana Janya strong evacuatives, then strength promoting ghrilas should be administered. If the patient does not desist from earth eating habit due to greediness, the earth should be given to him amply impregnated with drugs which can destroy its harmful effect such as Vidanga, Ela, Ativisha, Nimba leaves, Patha, Brihati fruit, Katurohini, Indrayava or Murva (Chikitsa Sthana 16/1117-122). Charaka had prescribed Lauha (iron) for treating the Panduroga in the formulation known as Navayasa Churna (Chikitsa Sthana 16/70-71) and administered iron soaked with cow's urine for a week long with milk to alleviate Panduroga. (16/69). Mandura (rust of iron) also used for the same purpose i.e. along with large number of herbs like, Punarnava, Triphala, Trikatu, Chitraka, Katuki, Vidanga, Haridra etc. Charaka had clearly mentioned that, if the patient of Panduroga with longer duration has excessive roughness is not curable. The Patient developing swelling due to chronic Panduroga and if he percept all objects as yellow coloured, stool with mucus and green colour and if he has anxious expression, white and excessively smeared limbs, vomiting, fainting and thirst etc. and if he becomes white due to deficiency of blood is also incurable. (Chikitsa Sthana - 16/31-33).

## PREVENTION

- Iron (Dark green, leafy vegetables, red meats, Eggs, Soy products, Legumes, Broccoli, Fish).
- Folate (Citrus fruits and juices, Leafy greens, Seafood, Beans, Peanuts, Whole grains)
- Vitamin B-12 (Fish, Greek yogurt, Eggs, Milk).

## DISCUSSION

Pandu Roga can be effectively correlated with iron deficiency anaemia due to similarities in etiology, pathogenesis, clinical features, and therapeutic principles. Ayurveda emphasizes correction of Agni and Dhatu nourishment rather than only increasing hemoglobin levels. Modern management primarily focuses on iron replacement therapy, whereas Ayurveda provides a holistic approach including dietary regulation, detoxification, and rejuvenation therapies. Integrative management may offer better outcomes in chronic and recurrent anaemia cases.

## CONCLUSION

Pandu Roga is a significant disease entity in Ayurveda that closely resembles iron deficiency anaemia. Both conditions are characterized by pallor, weakness, and impaired blood formation. Ayurvedic management aims at correcting Agni, balancing Doshas, nourishing Rakta Dhatu, and improving overall health. Classical Ayurvedic therapies along with proper nutrition can play an important role in prevention and management of iron deficiency anaemia. Further clinical and evidence-based studies are required to validate Ayurvedic interventions scientifically.

## REFERENCES

1. Ambika Dutta Shastri, 1996 *Sushruta Samhita with Ayurveda Tattva - Sandipika*, Published by *Chaukhambha, Sanskrit Sansthan*, Varanasi - 22100 1: India.
2. Apte, V.S. 1970 *The student's Sankrit - English dictionary*, Motilal Banarasi, Dass, Delhi - 110007, India.
3. Bhrahma Shanker Mishra 1988 *Bhava Prakasha of Bhava Mishra with Vidyotho Hindi commentry*, published by *Chaukhambha Sanskrit Samsthan*, Varanasi, 1: India.
4. Devi Chand 1995 *The Atharvaveda (Sanskrit) text with English translation* by Munshiram - Manoharlal publishers Pvt. Ltd., New Delhi, 110055, India.
5. Sharma, P.V. 1981 *Charaka Samhita (Text with English translation) Vol. 1 & II 1st Ed*, *Chaukhambha Orientalia*, Varanasi - 17, India.
6. Sharma, P.V. 1998 *Chakradatta (Text with English Translation)* Published by *Chaukhambha publishers*, Varanasi, India.
7. Swayam Prakash 1991 "Treatment of Anaemia with special reference to iron in ancient Indian Medicine. *Ayurveda A Historical perspective*" Published in *BIIHM XXI*, (2): 99-104 P.

8. Srikantha Murthy, K.R. 1996 "*Astanga Sangraha of Vagbhata*" (English translation) Vol. II., Chaukhamba Orientalia, Varanasi, 17: India.
9. Bull.Ind.Inst.Hist.Med. Vol XXX - 2000 10. Srikantha Murthy, KR. 1995 *Madhava Nidana (Rogavinischaya) of Madhavakara*, English translation, Chaukhamba Orientalia, Varanasi - I, India II. Wise, T.A. 1986 *The Hindu system of medicine*, Mittal Publishers & Distributors, Delhi 35: India 12. Yadunan Dass Upadhyay 1953: '*Madhava Nidanam*' (Sanskrit - Hindi), published by The Chaukhamba Sanskrit Series Office, Banaras, India.
10. Yaduna~ Dass Upadhyay 1950 *Astanga Hridayam* with Vidhyotini commentry by Atri Deva Gupta and published by Jaya Krishna Dass, Haridas Gupta, Varanasi, 1: India.