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# Ayurveda review article on Pandu

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#### **Abstract**

One of the primary symptoms of the illness that is associated with skin tone and colour is pandutva. The vitiation of Bhrajaka Pitta and Rakta, which are primarily in charge of the body's Prakrita Varna, causes Pandu to arise. The term "Vaivarnaya" has been mentioned in this context by Acharya Charaka. One of the "Varnopalakshita Roga" (diseases marked by a change in colour) that is listed in Ayurveda is Pandu Roga. It is characterised by changes in skin colour to white (Shweta), yellowish (Peeta), greenish (Harita), etc. Given the similarities in the clinical signs and symptoms, the Ayurvedic pandu disease and the anaemia described in Modern Medical Science may be connected.

Keywords: ayurveda, pandu, skin

# Introduction

A major characteristic of Pandu Roga diagnosis is pallor on the skin, which is produced by a quantitative and qualitative shortage of Raktu Dhatu (blood tissue), either in the form of red blood cells (RBCs) or haemoglobin. The illness is called Pandu roga since the most common symptom is panduta, or pallor. Due to the prevalence of panduta, or pallor, across the body, pandu roga and iron deficiency anaemia (IDA) have the closest correlation [1]. Roughly onethird of the world's population is known to be affected by iron deficiency, a relatively prevalent dietary condition. The incidence of IDA is relatively high in India, although it is low in wealthy nations. According to National Family Health Survey (NFHS) III data, the incidence of anemia in urban children is 71%, rural is 84%, and overall is 79% [2]. Nutritional iron deficiency is the most common cause of anemia in India [3]. IDA is a very common disease prevalent in the society and side effects of oral allopathic iron preparations are very frequently encountered [4]. In India, anaemia affects an estimated 50% of the population. The problem becomes more severe as more women are affected with it as compared to men [5]. It is estimated that about 20-40% of maternal deaths in India are due to anaemia and one in every two Indian women (56%) suffers from some form of anaemia [6]. Anaemia has got a very high prevalence rate in the world over and in spite of the massive efforts of the modern medical science; a good control has not been achieved. Such new associations in the treatment module to combat anaemia's more successfully [7].

#### Historical review

According to Rigveda and Atharvaveda, Panduroga is known as Vilohit, Haribha, Halima. In Garuda Purana it has been described that Takra mixed with loha churna is useful in Panduroga. Acharya Charak -Pandu Roga has been described in Sutrasthana in Ashtodariya Adhyaya as well as in Chikitsasthana 16<sup>th</sup> Chapter "Pandu Roga Chikitsa". Charaka has described Pandu Roga. (7) Acharya Sushruta has said Pandu Roga in Uttartantra Adhyaya 44,"Pandu Adhyaya" Sushrut has mentioned Kamala, Kumbhavhaya, Lagharak as the various stages of Pandu. (8) Acharya Vagbhatta has described Pandu in Nidanasthana 13<sup>th</sup> adhyay Pandu Roga-Shopha Visarpa Nidana and in Chikitsasthana 16<sup>th</sup> Adhyay, (Pandu Roga Chikitsa. (9) In Madhava Nidana the description of Pandu Roga is in 8<sup>th</sup> Adhyay Pandu Roga. (10) In Sharangdhara Samhita has described in Pradhana Khanda 7<sup>th</sup> Adhyaya In Bhavprakasha the description of pandu roha in Madhyam Khanda 8<sup>th</sup> Adhyaya. In Ashtang hridya has described pandu in Nidana Sthana Adhyaya.

#### Vyutpatti

The word Pandu is derived from 'Padi Nashane' Dhatu by adding 'Ku Pratyaya to it, the meaning of which is always taken in the sense of Nashana and as Pandu has been kept under the group which is classified and named according to the change in colour [10].

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#### Nirukti of Pandu

- According to Shabdarnava Kosh 'Pandustu Peetbhagardh Ketaki Dhulisannibham' means Pandu is like the colour of pollen grains of Ketaki flower which is whitish yellow [11]
- 2. 'Pandutwenuplakshito Rogah Pandu Rogah'means the disease which resembles Pandu Varna is known as Pandu [12]

### Definition of Pandu [13]

Sarveshu Chaiteshvih Pandubhavo Yatoadhikoatah Khalu Pandurogah. (Su.Ut. 44/4) It is called Pandu Roga because of the predominance of paleness all over the body.

### **Synonyms**

According to Shushrut Kamala, Panki, Laghrak, Alas and Kumbhahwa are the synonyms of Pandu <sup>[14]</sup>. In Rigveda and Atharvaveda Pandu has been described by the name of Vilohita, Halima and Haribha <sup>[15]</sup>.

# Types of Pandu Roga

Acharya Charak described the disease under five categories namely Vataja, Pittaja, Kaphaja, Sannipataja and Mridabhakshanajanya [16] and Acharya Susrutha has accepted only four types of Pandu excluding Mridabhakshanjanya Pandu [17], they are:

- 1. Vataj Pandu
- 2. Pittaj Pandu
- 3. Kaphaj Pandu
- 4. Sanipataj Pandu
- 5. Mridikabhakshanjaya Pandu

Acharya Harita mentioned eight types of Pandu in Harita Samhita and described Kamla, Kumbhakamla, Halimaka as their Synonyms [18].

#### Purvarupa

Symptoms which manifest themselves before the appearance of the disease are known as Purvarupa.

It can be divided into two types viz.

- 1. Samanya Purvarupa
- 2. Vishishta Purvarupa

Purvarupa according to Acharyas- Hridaya Spandana (Palpitation) - Raukshya (Ununctuousness) -Swedabhava (Absence of sweating) - Shrama

RUPA Vyakta Purvarupa is known as Rupa. Rupa appears in the Vyaktavastha i. e. fifth kriyakala of the disease. This is the unique stage of the illness, where it is clearly recognizable as all its characteristic signs and symptoms manifest Akshikutashotha, Aruchi, Arohaneayasa, Alpawaka, Annadwesha, Balakshaya, Bhrama, Durbalya, Dhatugaurava, Gatramarda, Hatanala, Sadana, Shthivanadhikya, Sannasakthi Classification according to Acharya Charaka - Acharya Charaka has classified the Pandu.

# Roga of 5 types

- 1. Vataja Pandu Roga
- 2. Pittaja Pandu Roga
- 3. Kaphaja Pandu Roga
- 4. Tridoshaja Pandu Roga
- 5. Mridbhakshanaja Pandu Roga

Classification according to Acharya Sushruta –Acharya Shushruta has not included mridbhakshanja Pandu. Because

according to him the variety of Pandu caused by Mridbhakshana is included in the sannipatika variety of Pandu Samprapti In general, Samprapti means development of the disease, which includes the sequences of process or events from Nidana Sevena to the characteristic development of disease. Tridosha Prakopa- Pitta Pradhana Vata throws Pitta in Hrudaya Pitta causes Rasavaha SrotasDushti Rasa Pradoshaand Rasa Vidaha Pitta and Vidagdha Rasa travels throughout Sharira Dushti of Kapha, Tvaka, Rakta, Mamsa Ashraya of Dosha between Tvaka and Mamsa Avarodha to Bhrajaka Pitta Expressions of various Varnas on Twacha Pandu

### Samprapati Ghataka

Udbhava - Hridaya Adhisthana - Rasa dhatu Vyakti - Twaka Sanchara - Rasayani Dosha - Sadhaka, Pachaka, Ranjaka, Alochaka Pitta - Vyana vayu, Samana Vayu, Kledaka Kapha Dushya - Rasa, Rakta, Mamsa Srotasa - Rasavaha, Raktavaha Sadhya — Asadhyata —The signs and symptoms and other conditions indicating incurability of Pandu Roga are as follows:

- 1. When the disease becomes chronic (Chirotpanna).
- 2. When excessive dryness has appeared in the patient. (Kharibhuta).
- 3. When the patient is afflicted with oedema owing to chronicness of this disease. (Kalaprakarshat Shuno)
- 4. When the patient gets yellow vision. (Pitani Pashyati)
- 5. When the patient is fully or partially constipated. (Baddha Alpa Vitaka)
- 6. When the Patient passes loose stool which is green in colour and which mixed with mucus (Sakapha Harita Atisara)
- 7. When the patient feels exceedingly prostrated (Deena)
- 8. When the body is exceedingly white as if besmeared (with whiteness) (Shwetatidigdhanga)
- 9. When the patient is exceedingly afflicted with vomiting, fainting and morbid thirst. (Chhardi Murchha Trushardita)
- 10. When the body of the patient becomes pale on account of loss of blood (Asrika Kshayad shwetatvam)

# **Upadrava** (Complications)

This is known as complication of the disease. 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 (Dyspesia), Murdha-Ruja (Headache), Kanthagata Shotha (Oedema in throat), Abalatva (Weakness), Murchha (Fainting), Klama (Fatigue), Hridaya Pidana (Cardiac Pain), Shwasa (Breathlessness) Atisara (Diarrhoea) Kasa (Cough), Swarabheda (Obstuction of Speech) Chikitsa All the available Ayurvedic Texts envisage the management of Pandu which can be classified under two headlines.

- 1. Chikitsasutra which refers to the principles of Pandu Roga in general. They are Snehan, Shodhana (Vamana, Virechana) Aaushadhisevan.
- 2. Different Remedies for Pandu Guluchayadi kashayam' drashadi kashayam, Ardhavilwam kashayam, lohasavam, punarnavaasavam, parthadyaristam, dantyarishtam, loha mandur, madhu mandur, navayasa lauham, svarnamakshika bhasma,rasasindhoora, mandura vataka Loha Bhasam with honey and ghee Shunthi churna with loha bhasama Loha bhasama with gomutra Powders of

ela + jeeraka +, sita - taken equal quantity Haridra churnama with curd

# Pathya-Apathya Pathyahara

# According to Acharya Charak [19]

- Shalianna, Yava, Godhoom mixed with Yusha prepared from Mudga, Adhaki and Masur
- Jangal Mamsa Rasa
- Panchagavya Ghrit, Mahatiktaka Ghrit and Kalyanaka Ghrit used for Snehan Karma.

# According to Acharya Susruta: [20]

- Pandu Rogi must use Arishta prepared from Guda, Sharkara (sugar) and Shahad (honey)
- Asava prepared from Mutra and Kshara should be used
- Jangala Mamsa Rasa added with Sneha (fat) and Amalaka Swaras should be used

**Apathyahara:** In Bhaisajya Ratnavali following Apathya Aahar are mentioned:

- Rakta Sruti, Dhoompan, Vaman Vega Dharan, Swedan and Maithoon are to be avoided by Pandu Rogi.
- Avoid consumption of Shimbi, Patrashaak, Ramath, Masha, Ambupaan, Pindyaak, Tambul, Sarshapa, and Sura.
- Intake of water of rivers like those originating from Vindhya and Sahyadri Mountain.
- All types of salt, sour edibles, Virudhha Anna (incompatible foods), food that is Guru (heavy to digest) and Vidahi (cause a burning sensation).

#### Discussion

Pandu's causative elements are extensively discussed in the Samhitas. Acharya Sushruta [21] states that Diwasvapa, Viruddha Bhojana, and Kordha vitiate Rakta. Additionally, he has stated that the leaders of Pitta Dosha's tovitiation are Krodha, Shoka, Bhaya, Vidagdha Anna Sevana, Ati Maithuna, Tila Tail, and Pinyaka [22]. Vata Prakopa is reached through Ativyayama, Ratrijagarana, Nidranasha, Ativyavaya, and Ati Adhvagamana [23]. Pandu Roga [24] has been mentioned by Acharya Charaka as a result of suppressing Chhardi, Vegavarodha, Viruddha Anna Sevena, as well as from using Ati Amla and Lavana Rasa excessively [25]. Here a question may arise that how the psychological factors can affect Dhatuposhana which ultimately results in Pandu? In this context one should remember that Acharya Charaka [26] has emphasised bad effect of Chinta, Bhaya, etc. on digestion. All these causes improper digestion of food which leads to improper Rasa Dhatu formation and further hamper Rakta Dhatu, Mamsa Dhatu formation and so on and thus leads to Pandu Roga. Nidanarthakara Roga also play importantrole as cause of Panduroga according to various classical texts. Diseases like Raktakshaya, Raktatipravartana, Raktarbuda, Raktarsha, Raktapradara, Yakritaplihavedha etc. condition are directly or indirectly related with Rakta Dhatu Kshaya which further results in all Dhatu Kshaya. While Punaravartaka Jwara Grahani, Jeernajwara, Shotha, Udararoga, Rajyakshma etc. involving vitiation of Agni and Ama production, which in next step obstructs the Dhatuvaha Srotaswhich leads to disturbance in Dhatuposhan Kramaand ultimately produces Pandu. Also Acharya Charakahas mentioned Panduas a Santar-panoththa Vikara [27], for which Samprapti may be same as described above. Only difference is, in this case obstructing factor may be Kapha as it is related with

Santarpana. The features described as Purvarupa of the disease are some of the general feature itself as Hridspandana (palpitation), Shrama (fatigue), Angasadaand Gatrasada (weakness). Some Purvarupasare related to features of digestive system or Agnias Avipaka, Aruchi, Alpavahnita, Vidamutrapitataetc., indicating that Agniis getting disturbed here and production of Mala Swarupa Pittais increasing here resulting in the increased yellow coloration of urine and stool. Raukshya and Twaksphutita are the features of Raktakshaya which are developing here. There is vitiation of Agniresulting in features of Mandagniand decreased production of Rakta increased production of Shthiyanadhikyais a feature described in the manifestation of Ama. Mridabhakshanais also the aetiology of the disease and viewing it is an individual could well forecast the future development of worm and anaemia is an individual. This is also a symptom found present in iron deficiency anaemia as pica or unusual cravings for eatables. Sweda-abhavais feature which interpreted by commentators as Vyadhiprabhava, meaning the effect of disease itself. In Rupavastha, there is also the simultaneous involvement of other Dhatus of the body resulting in their decline in quality as well as quantity wise. It is appealing to note that though the disease is Pitta predominance, the features developing also here includes Shishira Dwesha which is neither a features of Raktakshya or Pitta Vriddhi. Acharya Sushruta has classified Panduroga in4 varieties but Acharya Charaka has mentioned one additional variety of Panduroga that is Mrida Bhakshanjanya Pandu. Acharya Sushruta has mentioned that Pandu Bhava is caused by vitiation of Twaka through the vitiated Rakta in one who indulgence in Ahita Ahara Vihara [28]. Acharya Vagbhatta has mentioned the Samprapati given by Acharya Charaka. Thus the pathology of Panduroga is mainly concerned with vitiation of Pitta which in turn vitiates the Rakta, leading to condition of Pandubhava. So, Pitta being main factor in the causation of Panduroga, all the fivefold functions of it are affected more or less, but as the main seat of the disorganization is the Rakta and complexion of body, the Ranjana and Bhrajan function of Pitta isto bear the brunt. Thus Pitta Doshatakes leading part in the production of Dhatushaithilyaand Dhatugaurava. This leads to Balakshaya, Varnakshayaand Ojakshaya. Ultimately, the Pandurogais stated to be afflicted with Raktalpata, Medalpata, Nihsarata, Vivarnataand Shithilendriyata. It has also been stated that Santarpana which broadly means anabolism, brings about an increase in Kaphaand Ama production which leads to Mandagniand change in complexion of body i.e., Panduta. Vitiation of Kapha Doshais responsible for Gaurava, Nidraluta, Mandagni, Alasya, Alpavaka. The symptoms such as Aruchi, Jwara, Panduta, Gauravaand Tandraare indicative of Rasa Dhatu Dushti. Angamarda indicates the involvement of both Rasaand Rakta Dhatu. Karshyais indicative of Mamsa Dhatu Dushti. Atisvedaand Svedabhava are suggestive of involvement of Twaka, Mamsa Dhatuand Medo Dhatu. Shirnalomatais an important indicative of Asthidhatu Dushti. The loss of lustre and debility are suggestive of depletion of Oja.Clinical presentation of Panducan be correlated with anaemia of modern medical science. Anaemia is without blood/ pallor of the body. It is the most under diagnosed condition. If left untreated, it leads to many serious complications like CVD, compromised immune disease [29].

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