PANDUROGA: A MEDICO - HISTORICAL STUDY

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ABSTRACT

According to Ayurveda the word 'Pandu' denotes Pale or yellowish white colour. Panduroga (anaemia) is a disease in which man becomes Pallor due to deficiency of Rakta dhatu (blood) in the body. Rakta dhatu is mentioned among the Saptadhatus of the body. Historical importance of Panduroga and a comparative study regarding its Nidana-Samprapti, Lakshanas, Upadravas and Chikitsa etc. as found in Atharvaveda, Mahabharata, Charaka Samhita, Sushruta Samhita, Chakradatta and Basava Rajecyam etc. are being presented in this paper.

Introduction:

There are seven important constituents viz. Rasa, Rakta, Mamsa, Medo, Asthi, Majja and Shukra in the human body. They are known as "Sapthadhatu" in Ayurveda. Amongst them Rakta (blood) is a very important dhatu. Acharya Sushruta has mentioned Rakta dhatu as fourth dosha of the body i.e. in addition to three doshas viz... Vata, Pitta and Kapha (Su.Sutra21/3). He mentions that, Rakta is the life in living body. Therefore it should be protected from all types of vitiations and Pathogenic factors (Su.Sutra 14/44). Panduroga develops due to deficiency of blood in one's body. If it is not tackled in appropriate time can lead to Kamala (Jaundice) and turns to be incurable.

The word 'Pandu' denotes pale-white or yellowish - white colour. Panduroga is a disease in which man becomes Pale. The word Pandu become more familiar ever since this was found in Mahabharata, one of the two great epics of India.

Regarding the aetiology, types, symptoms, complications and treatment of Panduroga a comparative study has been done based on Atharvaveda, Mahabharata, Charaka Samhita, Sushruta Samhita, Astanga Hridaya, Astanga Sangraha, Madhava Nidana, Chakradatta, Bhava Prakasa Samhita and Basava Rajeeyam. In addition to this, references were also collected regarding the usage of Lauha (iron) and Mandura and their preparations for treating this important disease.

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". At two places Harima has been referred. Atharvaveda at XIX 44.2 discusses about the Anjana and its efficacy in treating Harima (Jaundice), Angabheda (aching of body), Visalpaka (Eczema),

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Kshaya (Consumption) etc. At Hymn IX. 8.9 it is mentioned that the Harima and some other diseases like, abdominal colic, kshaya (Phthisis) will be drived out by exertion. At Hymn I.22.1, it is mentioned that, Hridyota (heart disease) and Harima depart when sun rises. It indicates, that sunrays will help to treat Harima (It may be correlated with 'Phototherapy' which is used nowadays for neonatal Jaundice). Seeds of Shuka trees and strong medicines also were used for the treatment of Harima (1.22.4.) It is interpreted that Shuka trees are, Sirisha, Dadima, Shigru, Kshiri, Jambu etc. and strong medicines are, Gandhak, Sthauneyak, Talisha. (This interpretation is based on Astanga Sangraha). 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 (XVI 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 for Panduroga.

Due to foresaid Nidana (aetiology) the aggrevated Pitta dosha will be propelled by rakta in ten arteries which carry it to the whole body. This Pitta located in the space between tvak (Skin) and Mamsa (flesh) affects Kapha, Vata, Rakta, tvak and Mamsa etc. and thereby produces various shades of colours like pale yellow, deep yellow, and green in skin. This condition is known as 'Panduroga'

Premonitory symptoms of Panduroga include Hridaya Spandana (awareness of heart beat), Rukshata (roughness), Svedabhava (absence of sweat) and Sramastha. (exhaustion). Symptoms of fully established Panduroga includes, Karna Kshvedi (tinnitus), Ajeerna (loss of digestive power), Daurbalya (Debility), Sadana, (malaise) Annaddita (aversion to food), Shrama (exhaustion), Bhrama (giddiness), Nipeeda (Pain in body), Jwara (fever), Svasa (dyspnoea), Gauravam (heavyness) and Aruchi (anorexia). Feeling of kneaded, pressed or churned limbs. Moreover swelling on Akshikuta (orbit), Harital (green complexion), Sheerna loma (falling of hairs), Hata Prabha (loss of lustre), Kopanah (irritability), Sisiradveshi (aversion to cold) Nidralu (over sleepy) and Shteevana (spitting). Alapavak (diminished speech), and Pindikodveshta (Pain in calves), Ruk (Pain) in whole body (waist thighs and legs) and Sadana (lassitude) are also seen (Chikitsa Sthana 16/12-16).

Acharya Charaka had mentioned five (5) types of panduroga based on causative factors viz. 1) Vataja, 2) Pittaja, 3) Kaphaja, 4) Sannipataja (Tridoshaja) and Mritbhakshanajanyaja (Due to eating of soil/earth). 1) Vataja type presents with Krishna

Pandutva (blackish paleness), Ruksharunangata (roughness reddishness of the body), Angamarda (body ache), Ruja (Pain), Toda (Piercing Pain), Kampa (trembling) Parshvasirorujah (Pain in sides of head), varchahsosha (dryness of stools), Vairasya (distate in the month), Sopha (oedema), Anaha (hardness in bowel) and Balakshaya (debility). 2) Pittaja Type of Panduroga: Presents with Pita (yellow), Harita (greenish tinge), Jvara (fever) Daha (burning senation), Chardi (vomiting), Murcha (fating), Pipasa (thirst), Pita Mutra (yellowish urine), and Pita Shakru (yellowish stools) and Patient with Pittaja Pandu perspires profusely, may have desire for cold and aversion to food. He may have pungency in mouth, hot and sour things do not suit him "Amla Udgara (acid eructations), Daurbalya (debility), Tama (feeling of darkness are also seen. 3) Kaphaja Type of Panduroga: presents with Gauravam (heavyness), Tandra (drowsiness), Chardi (vomiting), Svetavabhasata (whitish complexion), Praseka (excessive Salivation), Lomaharsha (horripilation), Sada (malaise), Murcha (fainting), Bhrama (giddiness), Klama (exhaustion), Svasa (dyspnoea), Kasa (cough), Alasya (lessitude), Aruchi (anorexia), Vaksvaragraha (obstruction in speech and voice), Shukla mutra (whitish urine), Shukla Akshi (whitish eyes), Shukla Varchasa (whitish stools) and desire for pungent, and hot things, Svayathu (swelling), Madhurasya (sweetness in mouth) etc. Sanni Pataja (Tridoshaja): In those who use all sorts of things, all doshas get vitiated and cause Panduroga, which presents with all the above mentioned symptoms (Vataia, 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) viriates Pitta, and Madhura rasa (sweet taste) vitiate Kapha In addition to this, earth obstructs the srotas (channels) without undergoing any change and destroys bala (strength), ojas (vigour) etc and produce Panduroga, which further destroy the Bala (strength), Varna (complexion) and Agni (digestive fire) of the man. Patients may suffer from swelling in cheeks, orbits, feet, navel, and genital parts, as well as krimiroga and Atisara (diarrhoea) with blood and mucus. (Chikitsa Sthana 16/17-30).

Charaka had clearly mentioned that Hridaya spandana (awareness of heart beat) is the symptom which is common to all varieties of Panduroga (Chikitsa Sthana 16/12).

Regarding Kamala, Charaka says if a patient of Panduroga, consumes Pitta aggrevating things excessively it may further vitiate Pitta and it burns blood, flesh and gives rise to a disorder in which eyes, skin, nails and face become deep yellow, feces and urine as red and yellow. Patient looks like a frog. His senses and organs loose their functions, associated with burning sensation, Avipaka (indigestion), Daurbalya (debility), Sada (malaise) and Aruchi (anorexia). This is known as Kamala. It is due to aggrevation of Pitta, and is of two types 1) Kosthasrit (located in belly) and 2) Sakhasrit (spread into bodyly parts through blood). Chronic condition of Kamala leads to Kumbhakamala (Jaundice located in belly) which is curable but with difficulty. The patient of Kamala succumbs soon to the disease if feces

and urine become black yellow, if there is excessive swelling, blood in eyes, in the mouth, in the vomiting, feces, urine, and also if he faints and presents with thirst hardness in bowels, drowsiness, confusion, loss of power of digestion and conciousness. (Chikitsa Sthana 16/34-38). Another form known as Halimaka is also mentioned in Charaka Samhita. Its symptoms include, green, black and yellow complexion and loss of Bala (strength and energy), Tandra (drowsiness), Mandagni (Poor digestion), Mridujvara (mild fever), Strishvaharsha (loss of desire for woman), Angamarda (bodyache), Svasa (dyspnoea), Trishna (thirst), Aruchi (anorexia) and Bhrama (giddiness). It is due to vitiation of Vata and Pitta (Chikitsa Sthana 16/132-133).

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 (aetilogy) (Chikitsa Sthana 16/123).

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 sali rice, Yava (barley) and Godhuma (wheat) with soups of Mudga (green gram), Adhaki (pigeon pea), Masura (lentils) or meat soup of animals and birds. Unction 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

of ingested food by strong evacuatives, then strength promoting ghritas 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 16/117-122).

Charaka had prescribed Lauha (iron) for treating the Panduroga in the formulation known as Navayasa Churna (Chikitsa Sthana 16/70-71) and administered iron socked 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 exessively 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).

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 (0r) Laghavaka, and Alasaka (0r) Alasakhya along with four, types of Panduroga i.e. 1) Vataja, 2) Pittaja, 3) Kaphaja and 4)

- ioned as Purvarupa (premonitory symptom) for Panduroga. Other 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. There are some Upadravas (complications) according to Sushruta viz. Aruchi (aversion of food), Pipasa (thirst), Vamana (vomiting), Jvara (fever) pain in Masthishka (pain in head), Agnimandhya (loss of appetite), Sopha (swelling) and weakness in neck, oedema in neck, Murcha (fainting), Klama (fatigue) and Pain in Hridaya (heart). 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. According to Sushruta, Kumbhasahva is with swelling all over the body and pain in joints. Lagharaka/ Laghavaka is called when the cases of Kumbha Kamala are not treated and suffer from Jvara (fever), Angamarda (body ache), Bhrama (giddiness), Tandra (dizziness), decrease in the strength of the body and dhatu kshava (decrease in bodly elements). Halimaka has also been mentioned as in Charaka Samhita.

Sushruta had also mentioned Lauha (iron) and Mandura (rust of iron) for treatment of Panduroga along with several herbal and herbo-mineral preparation. He had also clarified that, complications of Panduroga Viz. Svasa (dyspnea). Atisara (diarrhoea), Aruchi (anorexia), Kasa (cough),

Trishna (thirst), Sula (pain), Jvara (fever), Sopha (swelling) Daha (burning sensation), Ajeerna (indigestion) Svarabheda (splitting of the voice) and Sada (malaise) should be treated on the same lines of treatment as mentioned separately for their management (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 Vaghbhata 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) subtances he may suffer from Kamala (Jaundice) and if it is untreated swelling will develop, then it is called Kumbha 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 sequalae of Panduroga. According to him 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, 9/12 & 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).

Basavarajeeyam (Text in Telugu Language):

In this Basavaraju, the author of this text gives information about Panduroga and its Nidana Samprapti, symptoms, treatment etc. in Panchama Prakarana, which is similar with the description given by Charaka. Usage of Lauha, Mandura bhasma is also found. Kamala, Kumbhakamala, have been described as sequelae of Panduroga (5/32-35; 60). Sushka (emaciated / dried) Pandu has also been mentioned (5/82).

Thus to conclude, Panduroga is an important disease of mankind since time immemorial. There is almost a similar description of Panduroga regarding its Nidana Samprapti Lakshanas, Upadravas and treatment in all Ayurvedic texts. Usage of Lauha and Mandura bhasma is also found in all the texts. Only Sushruta has not mentioned Mritbhakshana Janya Pandu as a variety of Pandu roga, but mentioned as a purvarupa (Premordial symptom). Therefore if Panduroga is not diagnosed early and left untreated can lead to Kamala and complicate the prognosis, may become incurable and at last may cause death.

TYPES OF PANDUROGA ACCORDING TO DIFFERENT TEXTS

	CHARAKA SAMHITA	SUSHRUTA SAMHITA	ASHTANGA SANGRAHA	ASHTANGA HRIDAYA	MADHAVA NIDANA	BHAVA - PRAKASHA	BASAVA - RAJEEYAM
1. Vataja	+	+	+	+	+	+	+
2. Pittaja	+	+	+	+	+	+	+
3. Kaphaja	+	+	+	+	+	+	+
4. Sannipataja	+	+	+	+	+	+	+
5. Mritbhaksha Janya.	ana +	•	+	+	+	+	÷

- + Mentioned
- Not Mentioned

PREMONITARY SYMPTOMS OF PANDUROGA MENTIONED IN DIFFERENT TEXTS

	CHARAKA SAMHITA	SUSHRUTA SAMHITA	ASHTANGA SANGRAHA	ASHTANGA HRIDAYA	MADHAVA NIDANA	BHAVA - PRAKASHA	BASAVA - RAJEEYAM
. Hridayaspandana	+	-	+	+	-	-	
. Roukshya and Rednes	ss +	+	+	+	+	+	+
. Svedabhava	+	-	+	-	-	-	-
. Akshi Kutha Sotha	-	+	-	-	+	+	-
. Shrama	+	-	-	+	-	+	-
. Bhrama	-	-	=		-	-	-
. Mritbhakshana	-	+	-	-	+	+	+
. Atisara	•	-	-		-	+	+
. Haritavarna Mala, Mu	utra -	+	+	+	+	+	+
0. Avipaka / Ajeerna	+	-	-	+	+	+	-
1. Daurbalya	-	+	+	-	+	-	
	+ Men	utionad					

Not Mentioned

SYMPTOMS OF PANDUROGA MENTIONED IN DIFFERENT TEXTS

SYMPTOM	CHARAKA SAMHITA	SUSHRUTA SAMHITA	ASHTANGA SANGRAHA	ASHTANGA HRIDAYA	MADHAVA NIDANA	BHAVA - PRAKASHA	BASAVA - RAJEEYAM
1. Karna Kshvedi	+	-	+	-	-	-	-
2. Ajeerna	+	+	-	-	-	-	-
3. Daurbalya	+	+	+	-	+	-	-
4. Atisara		-1	-	+	+	+	+
5. Sadana	+	-	,-	-	-	-	-
6. Vamana	•	-	+	+	+	-	-
7. Annadita	+	-	÷	-	-	-	-
8. Shrama	+	-	+	-	-	-	-
9. Bhrama	+	-	+	÷ -	+	+	+
10. Nipeeda	+	-	-	-	-	-	-
11. Jvara	+		+	_	+	+	+

1	2. Kasa	+	-	+	+	-	+	-
	3. Svasa	+	•	+	+		+	-
	4. Pipasa		+	+	+	+	+	+
	5. Gauravam	+	+		+	+	+	+
	6. Kampan	_	-	+	-	+	+	
	7. Pindikodvesta	+	-			·	-	-
	8. Alpavak	+	_	+	+		•	-
	9. Daha	-	+	•	+.	•	+	-
	0. Aruchi	+ .	•,	+	+ ,	-	+	-
	1. Svayadhu	+	•	+	+	+	+	+
	2. Anaha	•	•	-	+	-	+	-
	3. Haritam	+	+		-	+	+	+
	4. Sheerna Loma	+			-	- z	•	-
	5. Hatah Prabha	+	-		-		-	
	6. Kopana	+	-	-		-	-	-
	7. Sisira Dveshi	+		-	-	-	-	-
	8. Nidralu / Tandra	+	+		+	-	+	+
	9. Shteevana	+	+	+	+	-	•	_
	0. Ruk (Ruja)	+	-		-	-	+	+
	1. Sadma	+	-		-	-		_
_								

⁺ Mentioned
- Not Mentioned

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सारांश

पाण्डुरोग का ऐतिहासिक अध्ययन

- पी. वी. वी. प्रसाद

पाणडु शब्द का अर्थ है पीलायुक्त सफेद रंग। पाणडुरोग रक्त धातु की कमी से होता है। रक्त धातु शरीर की सात धातुओं में से एक है। पाणडुरोग का इतिहास एवं इसका निदान, संप्राप्ति, लक्षण, उपद्रव तथा चिकित्सा का तुल्नात्मक अध्ययन अथर्ववेद, महाभारत, चरकसंहिता, सुश्रुत संहिता, चक्रद्रत्त एवं बसवराजीयम आदि के आधार पर करके इस लेख में प्रस्तुत कियागया है।