CASE REPORT

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A Clinical Case Study On The *Ayurvedic* Management Of *Pandu Roga* (Anaemia)

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ABSTRACT

Pandu Roga can be closely correlated with anaemia in modern science. This disease causes a reduction often in red blood cells (RBCs) and Haemoglobin. A Prominent diagnostic feature of Pandu Roga (Anemia) is hemoglobin estimation. The assessment was Panduta (pallor of skin), Karnachhweda (tinnitus), Hatanala (loss of appetite), Shwasa (breathlessness), Bhrama (vertigo), Gatrashoola (bodyache) and Hrid-drava (palpitation).

A 38 years female lady having complaint of *Panduta* (Pallor of skin), *Aruchi* (loss of appetite), *Daurbalya* (weakness), *Pindikodweshtana* (leg cramps), *Akshikutshotha* (periorbital oedema), *Shrama* (fatigue), *Shwasa* (breathlessness) and *Hridspandnam* (palpitation) and hemoglobin concentration was 4.7 gm% comes in the OPD. The subjective assessment was done with 0, 1, 2 and 3 grading of questionnaires containing specific questions. The patient was advised to *Lohasava*, Liver tonic, *Punanarnava Mandur* and *Arogyavardhani Vati* twice for three months and followed-up of 15 days interval, there is improvement in clinical symptoms and Hemoglobin 5.7 gm%, 10.2gm% and 13.2 gm% at different follow-up study.

Key words: Pandu, Rasa Dhatu, Rakta Dhatu, anaemia, Punarnava Mandura (Iron preparation)



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INTRODUCTION:

Pandu is described in all Ayurvedic classical text. Ayurveda is gives equal importance to both preventive & curative aspects. Skin of person with Pandu gets whitish and pallor (Pandu Varna). It is a disease entity which has some physical as well as psychological clinical features similar to that of various type of anaemia. Pallor skin and decrease the level of Haemoglobin is the basic diagnostic criteria of anaemia. In present scenario according to WHO, anaemia is very common in general population and around 2 billion people are suffering from anaemia across the world². It affects all group of populations. Due to reduction in number of RBCs per cu.mm. of blood and quantity of Haemoglobin, pallor like other symptoms arises. According to Ayurveda, Pandu (Anaemia) is described as Pitta Dosha Pradhan Vyadhi associated with Rasa and Rakta Dhatu (Lymph and blood tissue) ³. Bhrajaka Pitta is responsible for the Normal Varna of Twak(skin)⁴. The changing lifestyle of human being by means of *Ahara* and *Vihara* (Diet and lifestyle) plays an important role in the manifestation of Pandu. Pandu having symptoms of Panduta (Pallor of skin), Karnachhweda (tinnitus), Hatanala (loss appetite), Shwasa (breathlessness)

Gatrashoola (Bodyache), Hrid-drava (palpitation), Gauravata (heaviness in the body). Ayurvedic medicines are of great importance for treatment of disease like Pandu and increase lifestyle interventions to regain a balance between body, mind, spirit and environment.

Samprapti of Pandu⁶

In *Pandu*, due to irregular/faulty (*Pitta prakopaka*: Amla(sour), Lavana(salty), Katu Rasa(pungent) Atisevana, Kshara(Alkaline), Ushna(hot), Tisksna, (sharp)Ruksha (dry) Ahara Atisevana, dietary habits and lifestyle, impaired the digestion, this signifies the disturbance of Agni (digestion strength), which is Mandagni. It results into Pitta Dosha is aggravated. Aggravation of Pitta causes vitiation of Rasa Dhatu. It leads to Gauravata (heaviness in the body) and Shaithilyata in Dhatu. (looseness in muscles etc.) Further Bala (strength), Varna (colour) and Sneha of Twak (skin) were affected, then diminution of a part of Rasa Dhatu (Poshaka Bhaga) which is responsible for the nourishment of Rakta Dhatu(blood tissue), So Rakta Dhatu (blood tissue), does not get nourished properly.

Irregular/faulty (Pitta Prakopaka) dietary habits and lifestyle

(Amla, Lavana, Katu Rasa Atisevana, Kshara, Ushna, Tisksna, Ruksha Ahara Atisevana)

Impaired the digestion, leads to *Mandagni*.



Pitta Dosha is aggravated



Aggravation of Pitta causes vitiation of Rasa Dhatu

(Gauravata and Shaithilyata in Dhatu, and Bala, Varna, Sneha of Twak were affected)



Rasa Dhatu does not nourishes the Rakta Dhatu properly



It leads Pandu Roga

Case

History of past illness

Since 4 year back patient felt the fever, headache, vomiting, loss of appetite, weight loss, fatigue and weakness, where she had diagnosed *Antrika Jwara* (Typhoid). For that she had taken treatment and got fully recovered from the disease.

History of present illness

A 38 year aged female patient visited in OPD of Sharir Kriya department in NIA, during the month of June 2020 presenting with symptoms of Paleness over the body, weakness, fatigue, anorexia and vertigo, pain in abdomen and bodyache. Patients belongs to middle socio-economic community and she was asymptomatic 4 year ago. At 3 month back patient had diagnosed anaemia by questionnaires that mention in the form of grading 0, 1, 2 3. Then she had confirmed by CBC (complete blood count) laboratory test with hemoglobin level 4.7 gm% and blood transfusion was necessary. But she did not want to undergo with blood transfusion, since from that she was started to taken a *Ayurvedic* treatment for *Pandu* (anemia) and from that time patient was taken regularly combination of Punarnava Mandur,

Arogyavardani Vati, Lohasava and Tab. Liv52 BD. and she had continued regular Yoga and Asana. After taking medicines for 15 days patient was repeat the follow up of CBC test and she got the hemoglobin level raised with 5.7 gm% and further after 42 days patient again repeat the CBC test and found the 10.2 gm% hemoglobin, then after 23 days Hemoglobin reached at their normal value with 13.2 gm%.

Family history: All family members have no history of any severe disease.

Personal history:

BP-110/70 mm of Hg, Pulse- 90/min., R.R. – 26 Appetite- Loss of appetite, Sleep- Normal, Bowel habit- Clear, Urine- Clear Menstrual history- scanty and regular Obstetric history- Nulligravida

Treatment Plan

1. Punarnava Mandura (Iron preparation):500 mg

Arogyavardhani Vati: 500 mg

- 2. Lohasava: 20 ml
- 3. Tab.: Liv 52

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Assessment Criteria⁷

The patient undergone the treatment were assessed

for improvement in specific symptoms of Pandu.

1. Aruchi (loss of appetite)

S. No.	Aruchi (loss of appetite)	Condition	Score
1.	Very good appetite	None	0
2.	Irregular	Mild	1
3.	Occasionally poor appetite (appetite is not on time)	Moderate	2
4.	Frequently persistent very	Severe	3
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2. Panduta (pallor)

S. No.	Panduta (pallor)	Condition	Score
1.	No pallor	None	0
2.	Pallor of conjunctiva	Mild	1
3.	Pallor of conjunctiva, nails, tongue	Moderate	2
4.	Pallor of conjunctiva, nails,	Severe	3
	tongue, skin, palm and soles		

3. Daurbalya (weakness)

S. No.	Daurbalya (weakness)	Condition	Score
1.	No	None	0
2.	Occasional in normal activity	Mild	1
3.	Persistent in normal activity	Moderate	2
4.	Occasional in heavy activity	Severe	3

4. Hrida Spandanam (palpitation)

S. No.	Hrida Spandanam (palpitation)	Condition	Score
1.	No palpitation on usual	None	0
	activity		
2.	Occasional on heavy exertion	Mild	1
3.	On light exertion	Moderate	2
4.	During rest	Severe	3

5. Shwasa (dyspnoea)

S. No.	Shwasa (dyspnoea)	Condition	Score
1.	No	None	0
2.	Occasional on exertion	Mild	1
3.	Walking upstairs / quick	Moderate	2
	moving		
4.	On bed	Severe	3

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	6. Pindik	odweshtana (leg cran	mps)
S. No.	Pindikodweshtana (leg cramps)	Condition	Score
1.	No	None	0
2.	Mild leg cramps only at night	Mild	1
3.	Leg cramps present in night or on exertion	Moderate	2
4.	Leg cramps present	Severe	3
	throughout the day		

7. Akshikutashotha (periorbital oedema)

S. No.	Akshikutashotha (periorbital oedema)	Condition	Score
1.	No	None	0
2.	Periorbital oedema in morning for 1 hours	Mild	1
3.	Periorbital oedema in morning for 2 hours	Moderate	2
4.	Periorbital oedema in morning for 6 hours	Severe	3

8. Shrama (Fatigue)

S. No.	Shrama (fatigue)	Condition	Score
1.	No	None	0
2.	Occasional in normal activity	Mild	1
3.	Persistent in normal activity	Moderate	2
4.	Occasional in heavy activity	Severe	3

Contents of Drug

Punarnava Mandura (Iron preparation)

S. No.	Name of Drug (Botanical name)	Dose
1.	Punarnava (Boerhavia diffusa)	1 Part
2.	Trivrit (Operculina turpathum)	1 Part
3.	Shunthi (Zingiber officinale)	1 Part
4.	Maricha (Pi <mark>per nigrum)</mark>	1 Part
5.	Pippali (Piper longum)	1 Part
6.	Vidanga (Embelia ribes)	1 Part
7.	Devdaru (Cedrus deodara)	1 Part
8.	Kustha (Saussurea lappa)	1 Part
9.	Haridra (Curcuma longa)	1 Part
10.	Daruharidra (Berberis aristata)	1 Part
11.	Haritaki (Terminalia chebula)	1 Part
12.	Bibhitaka (Terminalia belirica)	1 Part
13.	Amalaki (Emblica officinalis)	1 Part

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14.	Danti (Baliospermum montanum)	1 Part
15.	Chavya (Piper chaba)	1 Part
16.	Indrayava (Holoarrhena antidysentrica)	1 Part
17.	Pippali (Root of Piper longum)	1 Part
18.	Mustaka (Cyprus rotundus)	1 Part
19.	Chitraka (Plumbago zylanicum)	1 Part
20.	Mandura Bhasma (Iron preparation)	40 Part
21.	Gomutra (cow urine)	Q.S.
* Aro	gyavardhani Vati	
S. No.	Name of Drug (Botanical name)	Dose
1.	Parada (Mercury)	1 Part
2.	Shuddha Gandhaka (Sulphur)	1 Part
3.	Lauha bhasma (calcined iron)	1 Part
4.	Abhraka bhasma (calcined mica ash)	1 Part
5.	Tamra bhasma(Copper preparation)	1 Part
6.	Haritaki (Terminalia chebula)	1 Part
7.	Bibhitaka (Terminalia belirica)	1 Part
8.	Amalaki (Emblica officinalis)	1 Part
9.	Kutki (Pichorryza kurua)	1 Part
10.	Chitrakamula (Plumbago zylanicum)	Q.S.
11.	Guggulu (Commiphora mukul)	Q.S.
12.	Shi <mark>lajatu</mark> (A <mark>sphaltum)</mark>	Q.S.
13.	Nimbapatra Swarasa (Azadirecta indica)	Q.S.
* Loh	asava	
S. No.	Name of Drug (Botanical name)	Dose(Each 10 ml derived from)
1.	Lauha (Iron powder)	10 ml
2.	Shunthi (Zingiber officinale)	10 ml
3.	Maricha (Piper nigrum)	10 ml
4.	Pippali (Piper longum)	10 ml

S. No.	Name of Drug (Botanical name)	Dose(Each 10 ml derived from)
1.	Lauha (Iron powder)	10 ml
2.	Shunthi (Zingiber officinale)	10 ml
3.	Maricha (Piper nigrum)	10 ml
4.	Pi <mark>ppali (Piper longum)</mark>	10 ml
5.	Haritaki (Terminalia chebula)	10 ml
6.	Bibhitaka (Terminalia belirica)	10 ml
7.	Amalaki (Emblica officinalis)	10 ml
8.	Yavanika (Trachyspermum ammi)	10 ml
9.	Vidanga (Embelia ribes)	10 ml
10.	Mustaka (Cyprus rotundus)	10 ml
11.	Eranda(Ricinus communis)	10 ml
12.	Dhataki (Woodfordia fruticosa)	10 ml
13.	Makshika(honey)	4.270 gm
14.	Guda (jaggery)	7.375 gm
15.	Water	Q.S.

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Ta	b. Liv 52	
S. No.	Name of Drug (Botanical name)	Dose
1.	Himsra (Capparis spinoza)	65 mg
2.	Kasani (Cichorium intybus)	65 mg
3.	Mandura (Iron preparation) Bhasma	33 mg
4.	Kakamachi (Solanum nigrum)	32 mg
5.	Arjuna (Termainalia arjuna)	32 mg
6.	Kasamarda (Cassia occidentalis)	16 mg
7.	Biranjasipha (Achillea millefolium)	16 mg
8.	Jhavuka (Tamarix gallica)	16 mg

Yoga and Asana:

Yoga, Pranayama (Anuloma-Viloma, Kapalabhati),

Sarvangasana, Paschimottasana etc.

Pathya and Apathya Ahara and Vihara⁸

Pathya	(Whol	lesome)
ı aınıva	(VV HQ)	lesome,

Rice, wheat (old), barley, pea, green gram, spinach, green vegetables, pomegranate Munga(Green gram), Masura(Lens esculenta), meat, Munakka (Raisin), banana, mango, papaya, cow milk, ghee, guda(jaggery), Takra(butter milk) etc. and light exercise.

Apathya(unwholesome)

Til(sesame), Kulatha, Krishna Maricha(Piper nigrum), Sarshapa (Brassica campestris), and Diwaswapna (Sleeping during day time), Atap Sevana (sunbath), Krodha(anger), Chinta(anxiety), Ativyayama (excessive exercise), Ativyavaya (repeated course of sex)

OBSERVATIONS AND RESULT

S. No.	Scanning date	Clinical features	Result
1. S	01/07/2020	weakness, fatigue, anorexia	Hb%- 4.7 gm%
		and vertigo, pain in abdomen	Total RBC count-3.59x10 ⁶ µL
		and body-ache	
2.	15/07/2020	mild relief in symptoms	Hb%- 5.7gm%
			Total RBC count-3.84x10 ⁶ μL
3.	25/08/2020	completely relief in symptoms	Hb%- 10.2 gm%
			Total RBC count-4.85x10 ⁶ μL
4.	17/09/2020	no repeat any symptoms	Hb%- 13.2gm%
			Total RBC count-4.87x10 ⁶ μL

DISCUSSION

Ayurveda has a unique understanding of human physiology and pathology that offers a different perspective in diagnosis and treatment of disease. The normal haemoglobin in female 11.5-14.5 gm%. Acharya Charaka described, Mandura (Iron

preparation) and its preparations are important to treat the *Pandu Roga* (Anaemia). The ferric and ferrous fractions of *Bhasma* (metallic/mineral preparation) provide sufficient amount of iron, which is needed for the process of erythropoiesis.⁹

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The contents of *Arogyavardhani Vati* like *Triphala* and *Kutki* (*Picrorhiza kurroia*), with *Bhasma* (metallic/mineral preparation) and *Kajjali* (mercury sulphur bond) becomes capable for detoxifying due to *Sara Guna* (Mobile) by removing obstruction in *Srotas* (channels). *Lohasava* is very useful to improve *Agni* (digestion strength), abnormal function of *Agni* is the root cause of *Pandu Roga*. (Anaemia) Based on this fact the drug helps in breaking the pathogenesis of *Pandu Roga* (Anaemia). Most of drug of Liv 52 and *Trikatu* have hepato-protective, appetiser, digestive and

carminative properties. Hence it protects the liver and improves digestive power, absorption of *AharaRasa* and drug also. *Haridra* (*Curcuma longa*), *Amalaki* (*Emblica officinalis*) *Pippali*(*Piper longum*) and *Trivrit*a are thought to be *Panduhara* (*Drugs For Anaemia*) by various *Acharya*. Other drugs which are having immune-modulator and anti-oxidant properties.

In the present case by virtue of *Rasa* and *Guna*, *Mandura* (*Iron* preparation) Bhasma (metallic/mineral preparation) pacifies aggravated *Pitta* and maintain the normalcy.

CONCLUSION:

The tab. Liv 52, *Arogyavardhani Vati, Lohasava* and *Punarnava Mandur* is very effective in the management of *Pandu*.

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