

Management of Blood Transfusion Dependent Anaemia through Ayurveda

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ABSTRACT

Anaemia can be closely correlated to *Panduroga* in *Ayurveda*. Reduction in Red blood cell(RBC) and haemoglobin is main characteristic feature of this disease. Hemoglobin estimation is the one of the most important diagnostic tool for *Pandu* (Anemia).Transfusion dependent anaemia is form of anaemia characterised by need of continues blood transfusion .It is condition that that results from various diseases,and associated with decreased survival rates.Clinical presentation of *Panduroga* are explained by different Acharya-*Mandagni* (suppression of power of digestion), *Daurblaya* (weakness) *Bhrama*(Giddiness), *Jwara*(fever), *Swasa* (Dyspnoea),*GuruGatrata* (Heaviness), *Shoonakshikutta* (swelling peri orbital region), *Sheernalooma* (hair fall), *Pindikoudvesthan* (Cramps in calf regions), *Arohanayasha* (while climbing feel pain in calf, lumbar and feet, region thigh). This is a case study of a 19-year-old female patient from Delhi presented with blood transfusion dependent Aneamia to Kayachikitsa outpatient department at CBPACS,Najafgarh,Delhi Ayurveda treatment regimen containing herbal-mineral based and metallic preparations was administered for a period of approxiamately 2months, which resulted in marked rise in hemoglobin level, hematocrit, red blood count . Multidimensional approach of Ayurvedic medicine and principle can prove to be very effective in the management of this anemia.

Key Words *Pandu,Blood Transfusion Dependent Anaemia*

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INTRODUCTION

Pandu is a *Rasa Dhatudusthi Janya Vikara*¹ which affect all the *Dosas* mainly *Pitta Dosa*². Clinical presentation of *Panduroga* are explained by different Acharya-*Mandagni* (suppression of power of digestion), *Daurblaya* (weakness) *Bhrama* (Giddiness), *Jwara* (fever), *Swasa* (Dyspnoea), *Guru Gatrata* (Heaviness),

Shoonakshikutta (swelling peri orbital region), *Sheernalooma* (hair fall), *Pindikoudvesthan* (Cramps in calf regions), *Arohanayasha* (while climbing feel pain in calf, lumbar and feet, thigh region)³. In *Pandu Roga* complexion, strength, and unctuousness, and properties of *Ojas* get exceedingly reduced on account of vitiation if *Dosas* and *Dhatus*⁴ changes in *Ahara* and *vihara*

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(diet and lifestyle) plays an important role in manifestation of *PanduRoga* having symptoms *Panduta* (pallor), *Hatanala* (poor digestive fire), *Shwasa* (breathlessness), *Gurugatrata* (Heaviness in body), *Hrid-drava* (palpitations), *Gatrashoola* (bodyachae). In present scenario according to WHO, anemia is very common in general population and around 2 billion people are suffering from anemia across the world⁵. Anaemia is considered to be present if haemoglobin concentration of red blood cells or packed cell volume of RBCs is lower limit of 95%. The causes of anaemia fall in to three major pathological categories -1) Blood loss, 2) Impaired red cell production, 3) Accelerated red cell destruction⁶. *Ayurvedic* medicine are very effective for treatment of *Pandu* with any side effect and no lifelong dependency once aggravated or vitiated *Dosas* regains there *Sam Avastha* (equilibrium state of *Dosas*).

History of present illness-

A 19-year-old, female, non-vegetarian, residing at Delhi, presented to Kayachikitsa outpatient department at CBPACS, Najafgarh, Delhi with the chief complaints of *Daurblaya* (generalized weakness), *Shrama* (fatigue), *Shotha* (edema all over body) from last 1 year with haemoglobin concentration-6gm/dl. The patient was non-diabetic and non-hypertensive. There was no history of fever, chest pain, vomiting, diarrhea, jaundice, bleeding diathesis, etc.

Examination of the patient revealed a pulse rate of 92/min, a blood pressure of 114/70 mmHg (supine), and an axillary temperature of 98°F.

She had conjunctival pallor and no icterus. There was no lymphadenopathy, clubbing, skin rashes, or pigmentation. Cardiovascular examination revealed a normal S1 and S2 with no murmur. Upon examining the chest, vesicular breath sound was heard with no added sound, and nervous system examinations were within normal limits. Gastrointestinal Tract (GIT) examination showed no abnormality, and abdominal examination was normal. No specific etiological factor was found in the history and physical examination.

Peripheral smear showed dimorphic picture with anisocytosis, predominantly normocytic normochromic RBCs, few microcytic hypochromic RBCs, Leukopenia with mild neutropenia. On examining, *Prakruti* (~body constitution) was *Vata-kaphaja*; *Agnibala* (~digestive power) and *Sharirbala* (~physical strength) were *Madhyama* (~average) and *Satva* and *Pravar* (~good).

History of past illness-

- No history of HTN/DM/COPD/Coagulopathy/Bleeding disorder/Any chronic illness
- History of Splenomegaly before 2 year
- History of worm infestation before 1 year back (diagnosed in upper GI endoscopy and taken anti helminthic treatment).

Family history – Family members have no history of any severe disease.

Physical examination

GC- Fair

Pallor- Mild pallor Present

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No clubbing, cyanosis, Lymphadenopathy
BP-100/70mmHg, pulse -90/min, spo2-98,
Temp- 98⁰c
Appetite –Reduced, sleep-normal, bowel habit-
clear, bladder- normal Menstrual history – scanty
and regular Lmp-1/4/22, unmarried

Table 1 Treatment Protocol

Date	OPD visit	Treatment
9/4/22	First visit c/o generalized weakness, fatigue, oedema	<i>Saptamrit lauha</i> 2tab BD, <i>Lohasava</i> 3tsf BD with equal amount of water, <i>Sansamanivati</i> 2tab BD, wheat grass juice
23/4/22	Second visit improvement in symptoms	Same treatment continued, add <i>Lavangadivati</i> 2tab BD
7/5/22	Third visit- improvement in symptoms, no fresh complaint	Same treatment continued
21/5/22	Fourth visit –improvement in symptoms no fresh complaint,	<i>Saptamrit loha</i> 2tab BD, <i>Lohasava</i> 3tsf BD with equal amount of water, <i>Sansamanivati</i> 2tab BD, wheat grass juice, <i>lavan bhaskar churna</i> 3gm BD
4/6/22	Fifth visit – Improvement in symptoms no fresh complaint,	<i>Punarnavasava</i> 3TSF TDS along with previous treatment

OBSERVATION AND RESULT

Scanning date	Result
3/4/22	Hb %- 6gm RBC- 2.2 million /mm ³
22/4/22	Hb %-8.5gm RBC-
6/5/22	Hb%-12.2 gm RBC- 3.92 million /mm ³
19/5/22	Hb%-10.9 gm RBC- 4.30 million/ mm ³
3/6/22	HB%-13.6 gm RBC- 4.69 million/mm ³

DISCUSSION

In *Ayurveda*, Anemia can be correlated to *Pandu*, which is *Ras Dusta Janya Vikar* with *Pitta Pradhan Vyadhi*. *Acharya Charaka* mentions in *Pandu chikitsa*, “*Tatra Pandvamayi Snigdha Tikshna Urdha Anuloman*” which means *Kostha Sudhi* should be done with *Tikshna and Snigdha Aushadha*. In *Ayurveda*, *chikitsa* (~treatment) divided into two phase – *Sanshodhana* and *Shamsamana*. Patient was complaining of *Daurblaya*(generalized weakness) and *Shrama*(fatigue). Patient was having low strength

TREATMENT PROTOCOL

Considering the history, clinical examination, and investigations, treatment was given for a period of 56 days with four follow-ups on day 14th, 28th, 42nd and 56th day,[Table 1].

(*ksheena bala*) and thus *Samshmana chikitsa* was preferred. The medications administered are *Saptamrita loha*, *Lohasava*, *Sansamanivati*, *Lavanbhaskar churna*, *lavangadi vati*. *Saptamrit loha* contain *Triphala*, *Yasthimadhu*, *loha bhasma* which have *Raktavardhak*, *Rasayana* and *Tridoshshamak* properties and helps to improve (haemoglobin) *Pandu*. *Acharya* said *Sarvadha Sarvabhavanam Samanyam vridhhi karanam*. *Lohasava* is useful for *Raktadustijana vyadhi*. *Samshamni vati* contains *Guduchi* which is *Tikta Rasa* and *Madhur Vipaka*. It is included in *Dahaprasman*, *Vayasthapana Mahakashyam*. Thus, it pacifies *Pitta Dosha* and balances all the *Dhatu*. In *Lavangadi vati*, most of the content are *Tikta* and *Kashyam Pradhan* which helps balance of *Pitta Dosha*. Thus, these medications improved the haemoglobin level in the patient

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and patient feel relieved from the above mentioned complaints.

Patient was having low strength (*ksheena bala*) and thus *Samshmana* chikitsa was preferred. The administered medicines contains *Triphala*, *Yasthimadhu*, *loha bhasma* which have *Raktavardhak*, *Rasayana* and *Tridoshshamak* properties and helps to improve haemoglobin. *Lohasava* is useful for *Raktadustijana vyadhi*. *Samshamni vati* contains *Guduchi* which is *Tikta Rasa* and *Madhur Vipaka*. It is included in *Dahaprasman*, *Vayasthapana Mahakashyam*. Thus, it pacifies *Pitta Dosha* and balances all the *Dhatu*. Thus, these medications improved the haemoglobin level in the patient.

Ayurvedic treatment make significant improvement in symptoms of *Pandu* and raised the hb % from 6gm/dl to 13.6 gm/dl and RBC from 2.2 million/mm³ to 4.69 million/mm³. All the symptoms of *Pandu Roga* like *Daurbalya*, *Sotha*, *Klama* was subsided and thus blood transfusion was not required.

CONCLUSION

Nineteen year old female diagnosed as transfusion dependent anaemia of idiopathic origin may be due to some autoimmune cause not cured with Allopathic medicine and total blood transfusion of 27 unit in last one year, treated with Ayurvedic medication such as *Saptamrita loha*, *Lohasava*, *Sansamanivati*, *Lavanbhaskarchurna*, *lavangadivati*. These medication may work by acting on immune system by correcting *Rasa Srotas* and

Raktavaha Srotas Dusti. she is completely cured and her hb is raised from 6 gm/dl to 13.6 gm/dl and RBC is raised from 2.2 million/mm³ to 4.69 million/mm³, all the symptoms of *Pandu Roga* subsides.

Declaration of patient consent

Authors certify that they have obtained patient consent form, where the patient/caregiver has given his/her consent for reporting the case along with the images and other clinical information in the journal. The patient/ caregiver understands that his/her name and initials will not be published and due efforts will be made to conceal his/her identity, but anonymity cannot be guaranteed.

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