

Case Study

An Ayurvedic Approach and Lifestyle Modification in Anemia in Children - A Case Study

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ABSTRACT

Anemia is a common problem in children. A child who has anemia does not have enough red blood cells or hemoglobin. The most common causes of anemia- such as iron deficiency are generally easy to treat. It is achieved by many herbal medicines and *pathya palan*, which are describe by Ayurveda, especially for Anemia. Aim & Objective: To access the efficacy of Ayurvedic medicine and *Pathya palan* in the management of Anemia Setting: OPD of Balroga, Rajiv-lochan Ayurvedic medical college & Hospital Chandkhuri, Durg (Chhattisgarh) Method: Assessment was done before and after treatment with 30 days follow-up Result: Ayurvedic medicine and Pathya palan is effective in the management of Anemia in child.

Key words: Anemia, Ayurvedic medicine, *pathya palan*.

INTRODUCTION

Anemia defined as a reduction of the red blood cell volume or hemoglobin concentration below the range of values according to healthy person. Although a reduction in the amount of circulating hemoglobin decrease the oxygen carrying of the blood, few clinical disturbances occur until the hemoglobin level falls below 7-8g/dl. Below this level, pallor becomes evident in the mucous membranes. [1]

Anemia is most often recognized by abnormal screening laboratory tests. Patients only occasionally present with advanced anemia and its attendant signs and symptoms. [2] According to the third National Family Health survey (NFHS3), 79% of Indian children have anemia, including 71% of urban children and 84% of

those in rural areas. The history provides significant clues to the etiology of anemia, Causes vary with age and anemia may be multifactorial disease. The hemoglobin level at which symptoms of anemia appear depends on the rate of development of the anemia. Symptoms occur at higher hemoglobin level if anemia develops rapidly, as with hemorrhage. The most common and earliest symptoms include lassitude, and easy fatigability.

Alternative, children may have anorexia, irritability and poor school performance. Dyspnea on exertion, tachycardia, and palpitations indicate severe anemia. [3] In Ayurveda, Anemia can be compare with *Pandu roga*. Definition of *Pandu roga* describe by Acharya Maddhavkar in *madhav nidan* 8th chapter. [4]

The causative factor, pathogenesis, type and treatment of pandu roga is describe by Acharya charak in chikitsa sthana 16th chapter, Acharya sushruta in uttar-sthana 44th chapter. [5,6] Acharya Vagbhat in *nidan sthana* 13th chapter and *chikitsa sthana* 16th chapter. [7] Yogratnakar also mentioned 5 type of Pandu. [8] Acharya kashyap given few specific pre-symptoms of *Pandu roga* in *Vedanasthana*. [9] There are 5 type of pandu roga, accoroding to Acharya Charak, Acharya Vagbhat, Achrya Madhavkar, Acharya sharngadhar. [10] Acharya Sushruta mentioned 8 type of *Pandu*. [11]

CASE REPORT

A 12 year aged female patient visited the outpatient department of Kaumarbhritya, Rajiv-lochan Ayurvedic College & Hospital Chandkhuri, durg (Chhatisgarh) during the month of October 2018 presenting with symptoms of weakness, anorexia, and fatigue since 3 month. Patient has no any past history. Parents belongs lower middle socio economic community. Patient already consulted too many doctors, where she had diagnosed anemia because of hemoglobin level was 6.8 gm%. She had taken medicine continuously for 2 month but she didn't found any relief.

Brief history:

Antenatal History:

Age of mother at the time of conception was 25 years and the father was 29 years. The mother took regular antenatal checkups and took medicine on time. No history of any kind of infections, diabetes, hypertension, or seizures was reported.

Natal History:

Child was delivered by normal vaginal delivery at 39th week of gestational age with birth weight of 2.9 kg. No any history of neonatal Asphyxia, Neonatal jaundice, infection, congenital anomalies. Feeding started after 1 hour.

Postnatal History:

No any abnormal postnatal history found.

Family History: Mother also suffering from same complains, other family members said to be normal.

Developmental History- All milestones are attained at proper time.

Medical History: Calcium supplement, Multivitamins supplements, Zinc supplement etc.

Immunization History: All vaccination given as per Schedule

Dietic History: Exclusive breast feeding was done up to age of 6 month, weaning began with boiled potato, fruit juice, banana etc at the age of 7 month.

Personal History:

Appetite –Reduced

Bowel – Twice/day

Micturition –Normal, 3-4 time/day

Sleep –Disturb

General Examination

General Comment–Alert, active, well nourished child with normal sensorium.

Vital signs

HR –81/min RR –19/min Temp.97.8°F

Anthropometry –

1.	Head circumference	52 cm.
2.	Chest circumference	88 cm
3.	Mid arm circumference (both)	24 cm
4.	Mid thigh circumference (both)	52 cm
5.	Height	154 cm
6.	Weight	27 kg

General examination:

Consciousness- conscious	Lymphadenopathy - absent
Icterus-absent	Cyanosis-absent
Clubbing-absent	Gait-scissoring gait
Pallor-Present	Eye-Normal

Vital sign:

Blood pressure- 110/70mmhg

Respiratory rate: 20/min

Heart rate - 89/min

Temperature -97.8°F

Respiratory system: Chest bi- symmetrical, no added sound RR- 20/min

Cardio-vascular system: S1S2 Heard, No murmurs, HR-89/min

Per-abdomen: Soft, no any prominent veins, mild splenomegaly present

Central nervous System:

Higher mental function
 Motor system
 Sensory system
 Cranial nerve
 Locomotors
 No any Abnormal seen. } Intact

Investigations: Done on before and after treatment.

Investigation	BT	AT
HB%	6.8gm%	10.6%
MCV	64	69
MCH	23 pg	27pg
MCHC	28 gram	34 gram
RDW	12.5%	14.5%
Platelets count	270,000	243,000
Sickle cell anemia test	Negative	Not done
Thalassemia test	Negative	Not done
Total bilirubin	0.7mg/dl	0.7mg/dl
Direct bilirubin	0.3 mg/dl	0.3mg/dl
SGOT	32unit/liter	32 unit/liter
SGPT	38 unit/liter	37 unit/liter
Total reticulocyte count	1.2%	1.3%

Ayurvedic view:

Pitta-pradhan tridoshaj dusti

Diagnosis:

Treatment plan:

S.n	Shaman chikitsa		Pathya s (Diet chart)
1.	Tab. Arogyavardhani vati	1 Tab. BD	Early Morning: (lemon juice with honey, pomegranate juice) Breakfast :Chapati (2-3) Egg (1)
2.	Tab. Dhatri-loha	1 Tab. BD	Lunch: Fruits (pomegranate, raisins), rice, dal, red spinach
3.	Syp. Amyron	10 ml TID	
4.	Guduchi choornas 1 gm + ½ tab kamdugdha rasa	1 BD	Dinner: Dal pani, palak, chapatti (2-3), Milk (1 glass)
	Follow up- 1 month (Duration of treatment- 3 month)		

RESULT

Effect of Ayurvedic medicine and *Pathya palan* on symptoms of Anemia

s.n	Assessment Criteria	BT	At 1 st F/U	At 2 nd F/U	At
A.	Paleness	1	1	2	2
B.	Hemoglobin%	1	1	2	3
C.	Headache	1	1	2	2
D.	Joint pain	1	1	2	2

DISCUSSION

Pandu roga is a common disease which is seen growing children, because always they face GIT problems. In these condition children is not able to achieve the original nutrients and ions part from the food. In above case study patient got 90% relief from symptoms of Anemia, and hemoglobin is increase 6.8gm% to 10.6gm%. In *Charak samhita*, *sushruta samhita*, *Astang hridaya* and other classics are given many verities of treatment for

The case was diagnosed as Nutritional Anemia. Ayurvedic diagnosis is *Pandu roga*.

Assessment criteria:

Subjective: For assessment the result four symptoms will be kept as parameter.

A) Paleness:

- a. Grade 1- Present
- b. Grade 2- Absent

B) Hemoglobin %

- a. Grade 0- Below 6gm%
- b. Grade 1- 6 gm% - 8 gm%
- c. Grade 2- 8gm% - 10 gm%
- f. Grade 3- 10gm% - 12gm%

C): Joint pain

- a. Grade 1 - Present
- b. Grade 2- occasionally
- c. Grade 3- Absent

D): Headache

- Grade 1- Present
- Grade 2- Absent

Panduroga, which is very effective in the management of *pandu roga*. [12-14] Oral medication is not sufficient to treat the *Panduroga*, *pathya palan* is also essential. In this study chosen to give oral medication with proper diet charts for 3 month and got significant result in reliving the symptoms of *pandu*. *Arogyavardhani vati* have properties of *Deepan-pachan*, that support the proper digestion of food and helps in the formation of *rakta dhatu* which is increase the hemoglobin value in the patient. [15] *Guduchi* is a anti-oxidant drug, In *Bhaishjya ratnavali Guduchi choorna* mentioned as *Pleeha-yakrit Rogadhikar* and its effective in the treatment of *Pandu roga* and *Aaruchi*. [16] *Dhatri loha* which is also indicated in the *pandu roga* in *bhaishjya ratnavali* because the ingredients of the *dhatri loha* is *Amalaki choorna*, *Loha bhasma*, *Shunti*, *Pippali*,

Marich Haridra, And these drugs are blood enhancer and Trikatu (Shunti, Marich, Pippali) is help the GIT system for proper digestion. [17] The ingredients of Kamdugdha rasa are calcium carbonate, iron oxide, which is helpful to increase the blood level in the body. Kamdugdha rasa also increase the properties of other drugs, so if guduchi choorna advised with kamdugdha rasa then may increase the potency of *Guduchi choorna*. The ingredients of Amyron syrup are *Draksha, Satavari, Aswagandha, Vidari kand, Kaunch, Aamlaki* etc, which drugs are indicated in the management of anemia, general debility anorexia. In this patient the diet (*Pathya palan*) is advised according to the condition of the patient in which diet helps in the proper digestion of food and increases the blood level in the body.

CONCLUSION

In this patient, the overall effect was found near 90%. Therefore it can be concluded that Ayurvedic medicine along with *pathya palan* (Diet) help to improve the level of the blood i.e. hemoglobin, which is very effective in the management of the pandu roga and improving the quality of life.

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