

AMALAKI RASAYAN IN IRON-DEFICIENCY ANAEMIA IN ADOLESCENT CHILDREN

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Article Received on: 29/11/2023

Article Revised on: 19/12/2023

Article Accepted on: 09/01/2024



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ABSTRACT

Pregnant women and small childrens have health issues. The most prevalent cause of iron deficient anaemia is blood loss or malabsorption. A clinical condition called pandu roga resembles iron deficient anaemia quite a bit. The Pitta Pradhan Vyadhi is Pandu Roga. Because of vitiated Doshas, tissue metabolism in Pandu roga is impacted, resulting in Dhatu-shaythilya in all Dhatu. Everywhere over the body, paleness is predominant. The pathophysiology of Pandu is mostly caused by the Rasavaha and Raktavaha srotasas. So, here is a case report of 13 years old female child patient with iron deficiency anemia who was given Ayurvedic rasayana therapy in the line of treatment of Pandu roga

KEYWORDS: Amalaki Rasayana; Pandu; ferrous fumarate; folic acid; iron deficiency anemia.

INTRODUCTION

One of the ailments listed in Ayurveda is pandu roga, which is typified by skin colour changes to white (sweta), yellowish (pita), greenish (harita), etc. It is also commonly associated with the presence of Ketaki dhuli nibha chaya, which is a discolouration that resembles the colour of pandanus flowers. The sclera exhibits the same discoloration. It is one of the "Varnopalakshita roga," or diseases where the colour changes. The ailment is known by several names in the Vedas, including Vilohita, Harima, and Halima; Sushruta refers to it as Panaki, Laghavaka, and Kumbhahwa.^[1] According to Charaka samhita the prodromal symptoms in the disease include palpitations, dryness of the skin and mucosal surfaces and malaise. The clinical features mentioned for the disease include pale of the eyes (pandutwa), loss of appetite, periorbital oedema tinnitus and malaise etc.^[2] The clinical features of the Pandu roga can be compared with the disease Anemia. The term Anemia in Greek language means lack of blood or haemoglobin. It is one of the most common disorders in the developing countries because of the poor nutritional status. It occurs because of the poor intake of the iron and folic acid rich foods.

The disease is most commonly seen in children, adolescent girls, pregnant women and lactating mothers.^[3] In developing countries like India there is burden of population explosion, poverty, overcrowding, poor sanitation, and malnutrition. Indian children are

more prone to develop nutritional deficiency disorders like iron deficiency and ultimately suffer from the disease like Iron deficiency. Anemia resulting from lack of sufficient iron for synthesis of haemoglobin is the most common hematologic disease of infancy and childhood. The frequency of iron deficiency anemia is related to certain basic aspects of iron metabolism and nutrition.^[4] The Pandu disease affects children, pregnant and lactating women. Ayurveda described Pandu as Pitta Pradana Vyadhi associated with Rasa and Rakta Dhatu. Dhatus nourishment mainly affects in disease due to Pitta Prakopaka Ahara. Twak and Mamsa occur due to Doshas vitiation which resulting Pandu and Haridra Varna.^[5-6] The pathologically disease involve Agnimandya due to decrease in Abhyavaharana Sakthi Jaranasakthi and Kayagni, responsible for the Dhatwagni and Bhootagni, these all consequences results formation of immature Dhatu and malnutrition occurs due to the impaired Kayagni. Agnivikriti along with Varnahani, Prabhahani, Utsahahani and Krishata observe.^[6-8]

Aims: To evaluate the efficacy of Amalaki Rasayana in the management of Pandu.

CASE REPORT

A female patient of 13 years old, came to our Ayurveda Hospital, on 10 June 2023 with complaints of swelling in bilateral feet off and on, paleness in the skin, lethargy, whenever bluish bruises in the skin appear after any injury it recovers within a month by itself, hair fall (50

strands/day), palpitation since 3 months. She has a normal menstrual history. On examination- the general condition of the patient is stable, pulse rate- 68/ min, BP- 110/70mmHg, Palor-++, icterus absent, weight-45kg, height-150cm, R/ S-AE= BE, CVS- S1, S2 normal, no abnormal sound, CNS-well conscious, oriented place, person, time. On her complete blood count- hemoglobin level (8.0g/dl) was found low. On given one-month Amalaki Rasayana she had found significant relief in symptoms (swelling was resolved, pallor decreased, she was feeling energetic, hair fall (10 strands/day, palpitation had also decreased), and increased in hemoglobin level (9.8g/dl). Here a case report was done

by giving Ayurvedic amalaki rasayana in the line of treatment of Pandu, marked improvement was noticed.

Treatment given

Amalaki rasayana 1gm BD for 1 month.

Objective parameters

The following laboratory findings were assessed before and after treatment: Hemoglobin percentage (Hb%), red blood cell (RBC) count, hematocrit, mean corpuscular volume (MCV), mean corpuscular hemoglobin (MCH), mean corpuscular hemoglobin concentration (MCHC), serum iron, total iron binding capacity (TIBC).

Table 1: Shows parameters before and after treatment.

Test	Pre(10/06/2023)	Post(10/07/2023)	Normal Range
Hb	8.0 g/dl	9.8g/dl	12.0-17.0
WBC	6.07/ uL	5.37/ uL	4,000-11,000
NEUT	64.5%	61.9%	40-80
LYMPH	28.3%	30.7%	20-40
MONO	6.1%	6.1%	2.0-10.0
EO	0.8%	1.1%	1.0-6.0
BASO	0.3%	0.2%	0.0-2.0
RBC	4.92/uL	5.62/uL	3.8-5.50
HCT	29.6%	40.7%	36.0-50.0
MCV	60.2 fL	72.4 fL	83.0-110.0
MCH	17.5 pg	22.6 pg	33.0-37.0
MCHC	29.1g/dL	31.2g/dL	31.0-37.0
PLT	330/uL	259/uL	150-400

DISCUSSION

Amalaki rasayan, Amalaki (*Phyllanthus emblica* L.) has Tridosahara, especially Pittashamak (pacifying Pitta), Rasayan (rejuvenative) and Shonitsthapana properties, thus nourishes the Dhatus and is also known to enhance the absorption of iron.^[9] Amalaki is also having antioxidant properties by virtue of antioxidants present in it which include Vitamin C, bioflavonoids, flavones, polyphenols, and carotenoids.^[10] Supplementation of antioxidant vitamins with iron supplementation may offer a better response in the management of IDA.^[11] Pandu means pallor or whiteness. In this disease, there is pallor on the skin, due to deficiency of blood tissue either in form of haemoglobin or red blood cells, hence called anemia. The causative factor of Pandu are-excessive intake of alkaline, sour, pungent and salty, too hot, incompatible and unsuitable food, suppression of natural urges, Manas Bhav- anxiety, fear, anger causes Pitta vitiation and is propelled to the body by aggravated Vata. Palpitation in the heart, dryness of skin, absence of perspiration, fatigue, cracks in the skin, salivation, looseness in the joints and whole body, urge for eating mud, edema under the eye lids, slight yellowish color to urine and feces. Agni vaishmya is caused by two factors- Nija that can be due to improper absorption, Agantuja that can be due to blood loss. Agni vaisamy leads to Vata vridhi and Oja kshya and ultimately Dhatu shaithilya. Poor absorption is the main cause of iron deficiency anemia.

CONCLUSION

Pandu roga is Pitta pradhan vyadhi of Rasvah and Raktavaha srotas. By the Ayurvedic rasayan therapy (Amalaki rasayan) properties and actions work in breaking the pathogenesis of Pandu. Amalaki which help in increasing haemoglobin level and general symptoms in the patient effectively in just one month duration. So, Ayurvedic rasayana therapy should be used as primarily intervention in iron deficiency anaemia (Pandu) without any side effects.

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