



EFFICACY OF AYASTILADI CAPSULES IN THE MANAGEMENT OF PANDU W.S.R TO IRON DEFECIENCY ANAEMIA

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ABSTRACT

Pandu roga can be closely correlated with anaemia based on similarities in the signs, symptoms and lauh yogas (iron formulations) mentioned in the treatment of disease. Anaemia is the most common nutritional disorder with very high prevalence in India. Prevalence of anaemia in Indian subcontinent is around 53.2%⁽¹⁾ and more than half of all anaemia are secondary to iron deficiency⁽²⁾. Oral iron supplementation is the main treatment protocol for the management of iron deficiency anaemia but it has various side effects especially gastric irritation and constipation. Ayurveda with its large range of lauh yogas can provide effective management of iron deficiency anaemia with least or no side effects as compared with oral iron supplements. Two female patients with moderate anaemia were enrolled in the study and prescribed with oral administration of ayastiladi capsules for a period of month. After one month of administration there was significant response in symptoms as well as investigation values.

Keywords: Pandu, iron deficiency anaemia, Ayastiladi capsules, haemoglobin

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INTRODUCTION

The most prominent diagnostic feature of pandu roga is yellow discolouration of the skin, Pitta dosha which is responsible for the normal colour of the body due to *Nidan sevan*(consuming etiopathological causes) it gets vitiated and causing dushti of *dushyas* (kapha,vata,asrak,twak,mams) and causes yellow discolouration of the body. The symptoms described in the text of pandu roga are *bhrama*(giddiness),*aarohan aayas*(breathlessness on exertion),*hatanala*(loss of appetite),*gatrashool*(Bodyache),which shows its close proximity with the anaemia.

Anaemia is defined as the condition having lower than normal number of red blood cells or quantity of hemoglobin, it can be due to quantitative (as in haemolytic and hemorrhagic anaemia) as well as qualitative (as in sickle cell anaemia and thalassemia) deficiency of blood. As both the components are responsible for the oxygen carriage to the cells the lack of which imparts yellow, blue discolouration to the skin and development of the symptoms like fatigue, breathlessness etc.

Anaemia is a most common nutritional disorder worldwide and its prevalence in India is very high which is due lack of balanced diet especially in

rural areas. According to NHFS V data the prevalence of anaemia in urban children is 66.3% and in rural children is 70.7%.

Oral iron supplementation is the main treatment approach for the management of iron deficiency anaemia but the iron supplements have a lot of side effects especially gastric irritation, constipation etc. On the other hand, ayurvedic lauh(iron) formulations are very effective with no side effects.

CASE REPORT

Patient 1

A 26 yrs old female having: -

Chief complaint - Breathlessness on exertion x 1month

Past medical history - not significant

Past surgical history- not significant

Family history -not significant

On Examination- G.C good

Height: -5'1"

Weight: -46

Pallor-Absent

Icterus - Absent

R. R = 16 min

PR-72/min

BP - 110/70 mm Hg

Temp -98.2°F

Table 1. Effect of Ayastiladi yoga on CBC

	Before intervention (1/3/2021).	After intervention (6/4/2021)
HB	10.6 gm/dl	11.9gm/dl
TRBC	4.35 lac/cumm	4.82 lac/cumm

HCT	32.5%	37.1%
MCV	74.5 fl	77.1 fl
MCH	24.2 pgs	24.7 pgs
MCHC	32.2 gm/dl	32.0 gm/dl
PLATELET	3.7 lacs/cumm	3.9 lac/cumm
TLC	7 thousand/cumm	7.7 thousand/cumm
ESR	60mm 1st hour	29mm 1 st hour

Patient 2

A 25 yrs old female having: -

Chief complaint - Breathlessness on exertion x 2months

Loss of appetite x 2 weeks

Bodyache (on-off) x 2 weeks

Past medical history - not significant

Past surgical history- not significant

Family history -not significant

On Examination- G.C good

Height: -5'1"

Weight: -55

Pallor-Absent

Icterus - Absent

R. R = 18 min

PR-75/min

BP - 120/70 mm Hg

Temp -98.2°F

Table 2. Effect of Ayastiladi yoga on CBC

	Before intervention (5/3/2021).	After intervention (16/4/2021)
HB	10.8 gm/dl	11.9gm/dl
TRBC	5.15 lac/cumm	5.10 lac/cumm
HCT	34.5%	36.8%
MCV	67.0 fl	72.1 fl
MCH	20.2 pgs	23.1 pgs
MCHC	31.2 gm/dl	32.0 gm/dl
PLATELET	2.4lacs/cumm	2.8 lac/cumm
TLC	6.5 thousand/cumm	9.0 thousand/cumm
ESR	32mm 1st hour	29mm 1 st hour

Therapeutic Intervention

Described in bhaishajya ratanavali under *pandu rogadhikara*.

Table 3. Contents of Ayastiladi capsules

NAME OF DRUG	BOTANICAL NAME	PART USED	PART
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Tila	<i>Sesamum indicum</i>	Beej	1
Shunthi	<i>Zingiber officinale</i>	Kanda	1
Marich	<i>Piper Nigrum</i>	Phala	1
Pippali	<i>Piper longum</i>	Phala	1
Loha Bhasm	Ferrum(Fe)		1
Suvarnamakshika	Copper iron pyrite		5

Procedure of preparation

All the ingredients of the formulations were taken in the mortar and given bhavana with *amalaki swaras* 3 times. After completion of three *bhavana* the dried powder was filled in the capsules. Each capsule weigh approximately 250mg.

Administration of therapeutic intervention

2 capsules twice a day with plain water after meals for the duration of 1 month.

DISCUSSION

Ayastiladi modaka consists of two *lauh* (iron) sources *lauh bhasm* and *swarna makshika bhasma*, which shows its application as oral iron supplementation, *lauh bhasm* contains iron as Fe₂O₃ and Fe₃O₄ compound⁽³⁾ and *swarna makshika bhasm* contain iron as Fe₂O₃ and FeS₂ compounds⁽⁴⁾. The total iron content present in the *lauh bhasm* is approximately 85%⁽³⁾ and that of *Swarna makshik bhasma* is approximately 32%⁽⁴⁾. The *lauh bhasm* consumed by the patient on a daily basis is 100mg and that of *Swarna makshika bhasm* is 500mg so the iron consumed from them are 85mg and 160mg respectively. The total compound iron consumed by the patient is approximately 245mg which shows its efficacy in such a low dose. *Trikatu* is *Ushna-tikshana* in

nature and having *katu rasa and deepana-pachana* properties. With these properties it will correct *agni* and does *ama pachana* and *sroto sodhana* that in turn increase the bioavailability of the drugs⁽⁶⁾. *Amalaki swaras* due to its *sheet virya* the formulation does not produce any gastric irritation and facilitates the absorption of iron due to its rich vit c content. Trituration decreases the particles size of the drugs which facilitates the absorption.

CONCLUSION

It is concluded that due similarity in clinical presentation and treatment principal *pandu* can be correlated with the iron deficiency anaemia. *Ayastiladi* capsules with *Katu, Kashay Rasa, Deepana, Pachana, Ushna, and Tikshna Guna*, along with high quantity of *lauha* and *Suvarnamalshik bhasma* has enough potency to disintegrate the etiopathogenesis of *Pandu Roga*.

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