



## THE CONCEPTUAL STUDY ON THE ROLE OF AMALAKI CHOORNA IN PANDU VYADHI

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### ABSTRACT

In the current era today, modernization is related to progress, but it has also brought along the advent of several diseases in the long run. A rapid pace of lifestyle, increasing stress, and over-consumption of unhygienic and junk food has been causing the nutritional deficit. One such common disease is *Pandu*, which can be closely related to Anaemia in modern sciences. *Pandu Vyadhi* is described ancient literature in *the Vedic period*. It is described as discolouration of eyes, skin, tongue, nails, etc. Along with the symptoms like *Akshikutshotha*, *Hridspandan*, *Aayasenshwas*, *Daurbalya* etc. The paleness of skin is due to the *Raktalpata* and this is the cardinal symptom of *Pandu Vyadhi*. It is included in *Santarpanjanya Vyadhi*. Most of the symptoms of this disease are caused due to *Raktalpata*. *Rakta Dushti* and *Rasa Dushti* are the major symptoms of *Pandu Vyadhi* and the causes are *Sheet*, *Guru Ahar*, *Adhyashana* etc. which affect the *Tridosha* and cause its *Dushti*. *Rasa Dhatu Kshay* is responsible for *Dhatushaithilya* and *Oja Kshaya*. *Dhatu* and *Oja* are the main components of our body therefore *Nisarta* and *Shthilendriyata* is occurs. Skin paleness (*Twak Vaivarnya*) is presented as a dominant feature. On the other hand, *Rasa Dhatu* also plays a key role in the *Dhatu Nirmiti* process. *Rasa Dhatu Dushti* is responsible for *Vikrut Dhatu Nirmiti*. *Vikrut Dhatu* i.e. *Rakta* leads to *Raktalpata* and thus plays a major part in the *Samprapti* of *Pandu Vyadhi*. In this regard, the present article deals with the role of *Amalaki Choorna* in *Pandu Vyadhi* with special reference to Iron Deficiency Anaemia.

**Keywords:** Pandu Vyadhi, Dhatu Kshay, Anaemia, RaktaDushti, Rasa Dushti

## INTRODUCTION

According to the modern concept, anaemia is a state in which the blood haemoglobin levels are below the normal range<sup>(1)</sup>. Anaemia has various types excluding genetic disorders, anaemia due to chronic inflammation, or anaemia due to any type of cancer. Most types of anaemia are due to nutritional deficiency. While treating anaemia in a hospital certainly the prevalence of the disease is abundant<sup>(2)</sup>. Many modern therapies are available. Oral haematinics, and parenteral treatments; in case of severe anaemia blood transfusion is available. Among all types of anaemia, Iron Deficiency Anaemia has a large prevalence, and while treating this most patients require oral haematinics. As described in the literature haematinics are the best effects on anaemia but have more gastrointestinal side effects like constipation, gastritis, flatulence, etc.<sup>(3)</sup>. Some herbo-mineral combinations have very encouraging results in the treatment of Pandu. The paleness of skin is due to the *Raktalpatata* and this is the cardinal symptom of Pandu Vyadhi. It is included in *Santarpanjanya Vyadhi*<sup>(4)</sup>. *Amalaki Choorna* is described by *Acharya Shushrut* in *Pandurogpratishedhadhyaya*<sup>(5)</sup>. It contains vitamin C which has antioxidant properties. Vitamin C plays a number of important roles in the body including enhancing the absorption of iron. Iron helps in the formation of haemoglobin, the part of the red blood cell that carries oxygen. Vitamin C also aids in red blood cell production. Vitamin C deficiency can lead to anaemia or low red blood cell count. *Amalaki* has *Tridoshghna*, *Pittashamak*, and *Rasayan* properties and thus nourishes the *Dhatu* and also is known to enhance the absorption of iron<sup>(6)</sup>. It also stimulates the immune system and keeps diseases and disorders at bay. *Amalaki* is easily available, cheap, and easy administration, thus this drug is selected for *Pandu Vyadhi*.

In Ayurved, many drugs like *Haritaki*, *Amalaki*, *Pippali*, *Shilajatu*, *Makshika*, *Loha*, *Mandura*, and *Abhraka* having *Yogavahi* and *Rasayana* properties have been mentioned and they provide better

nourishment to the *Rasaraktaadi Dhatus*. Hence, *Bala*, *Sneha* and *Varna* of the body increase. *Amalaki* is one such drug that provides better nourishment to the *Rasaraktaadi Dhatus*. In *Rasayana Adhyaya*, *Charaka* stated that *Rasayana Chikitsa* should be done in *Ojakshaya* and *Dhatushithilata* stages where *Dhatu* has lost its original form for qualitative production of *Dhatu*<sup>(7)</sup>. *Sushrutacharya* also mentioned the efficacy of *Amalaki-Madhu Yoga* in *Pandu Roga*<sup>(8)</sup>.

Globally, anaemia affects 1.62 billion people, which corresponds to 24.8% of the population. The highest prevalence is in preschool-age children, and the lowest prevalence is in men. However, the population group with the greatest number of individuals affected is non-pregnant women<sup>(9)</sup>.

### Aim:

To study the role of *Amalaki Choorna* in *Pandu Vyadhi* with special reference to Iron Deficiency Anaemia.

### AMALAKI-

**Latin name-** *Embelica officinalis Gearten*

**Family-** *Euphorbiaceae*

**Synonyms-** *Amritphala*, *Amalaka*, *Dhatrithala*, *Vayasya*, *Vrishya*, *Tishyphala*

In *Ayurveda*, while treating any disease we have to consider each and every thing like *Nidan*, *Samprapti*, vitiated *Dosha*, *Dosha Dushya Samurchana* last but not least the drug. *Acharya Charaka* has mentioned Drugs in *Trisutra* and placed them in *Chatushpada*. *Amalaki Choorna* is mentioned by *Acharya Sushrut* in *Pandurogapratishedha Adhyaya* for the treatment of *Pandu Vyadhi*. *Amalaki choorna* is described as *Swayonivardhana Dravya* for *Rakta Dhatu*<sup>(10)</sup> *Dhatrivaleha* and *Dhatriloha* are also described by *Acharyacharaka*. *Amalaki Choorna* is used in laxatives, fever, eye wash, appetite stimulants, indigestion, jaundice, anaemia, anorexia, etc.<sup>(11)</sup>

### Propertis<sup>(12)</sup>-

**Rasa-** *Amla Pradhan*, *Madhur*, *Tikta*, *Kashaya*, *Katu* (*Lavan Rasa Varjit*)

**Virya-** *Sheeta*

**Vipaka-** Madhura

**Karma-** Tridosahara specially Pittadosahara.

**Special categorisation-**

**Charaka-** Jwaraghna, Virechanopaga, Kushthaghana, Vaysthan.

**Sushrut-** Amalakyadi, Triphala, Parushakadi.

**Karma-**

Amalaki has the properties Rasayana, Vajikarana, Pandughnata, Vrushya, Chakshushya, Vayshtapana, Jwarghana, Virechanopaga, Sarvadoshhara, Raktpit-taghna, Pramehaghna, Arshoghna, Kushthaghna, Gulamahara, Deepana, Anulomana, Rochana, Dahanprashmana, Amlata- nashaka, Rasayana, Medhya, Yakrituttejaka, Stambhana, Kaphaghna, Keshyaetc.

**Rognagnata-** it is used in Pandu, Agnimandya, Shwas, Kasa, Raktapitta, Kamala, Pittajshoola, PaitikVikar, Mutrakruchha, Hikka, Chardi, Grahani, Arsha, Atisara, Amlaoitta, Parinashoola, Udavarta, Pratishay, Yakrutvikar, Daha, Pradara, Daurbalya, etc. <sup>(13)</sup>

Table No. 1, **Nutrients of Amalaki.**

Nutrients	Percentage or per 100gm
Vitamin C	720 mcg
Vitamin B1 (Thimine)	28mcg
Calcium	Iron 1mg
Nicotinic Acid	0.2mcg
Calcium	15 mg
Iron	1mg
Phosphorus	21mg

### PHARMACOLOGICAL ACTION

Amalaki is an abundant source of Vitamin C, and it is a source of collagen which is responsible for the building of the body, thus keeping all the cells of our body together. Various experiments have shown that Amalaki fruit has the property of Anti-inflammatory, hepatoprotective, hypocholesteronemic, Antioxident, etc. Amalaki is a well-absorbent agent of iron Ascorbic acid, and it is highly present in Amalaki, which helps to increase the iron deficit in anaemia. Haemoglobin percentage is significantly decreased in anaemia. Amalaki has low molecular weight hydrolysable tannins 69 (Emblicanin A and Eblicanin B,

### Botanical description-

Medium-sized deciduous tree, leaves subsessile, closely set along the branchlets.

### Habitat-

Throughout India, it is found in tropical and subtropical parts. Abundance in dry deciduous forests, ascending to 1500m on the Himalaya, Nagpur, Bihar, Orissa, west Bengal, Deccan, Karnataka, and Western Ghat <sup>(14)</sup>

### CHEMICAL CONSTITUENTS

It is an abundant source of Vitamin C; nicotinic acid, riboflavin, Dfructosre, D-glucose, myoinositol, and pectin with D-galacturonic acid, and D-galactosyl residue, embicol, mucic, indole acetic acid and four other auxins – a1, a3, a4, a5, two growth inhibitor-R1 and R2; pyllembic acid and plylembin (fruits) and fatty acids (seed oil); tannins, polyphenolic compounds; terchebin, coariaglin, ellagic acid, alkaloids, etc.

puniglocin) and this therapy is used as an antioxidant property. <sup>(15)</sup>

**Part used-** Fruit.

**Dosage-** Fruit powder 2-5gm

**Action and uses-** Fruits are used as digestive, laxative, cooling, aphorodisiac, diuretics, and antipyretics.

### DISCUSSION

The prevalence of this disease is very much on the higher side in India among all age groups also the largest population of the world is suffering from this disease. In India poverty, low socio-economic conditions, illiteracy, etc. Is the main risk factor for the

disease? Nutritional deficiency anaemia has the highest prevalence among all types of anaemia. Anaemia correlates with *Pandu Vyadhi* according to *Ayurvedtext*. Many references are available in the ancient literature about *Pandu Vyadhi*, this *Pandu Vyadhi* affects most of the Indian population.

#### **Action of Amalaki Choorna-**

##### **Annavaahasrotas-**

*Amalaki* has the property of *Amapachana*, *Agnideepana*, *Ruchikara*, and *Anulomanadue* to *Amla Rasa Pradhana Dravya* which is a helpful breakdown of *Annavaaha Srotas Dushti*.

##### **Rasadhatu-**

Formation of malnourished *Rasa Dhatu* is a responsible factor in *Pandu Vyadhi*, but *Amalaki* helps in *Pachana* and *Shodhanof Rasagata Dhatu* and also *Bruhana Karma* for *Rasa Dhatu* thus, the formation of well-nourished *Rasadhatu* takes place.

##### **Raktadhatu-**

As the *Amalaki* is *Swayovardhan Dravya* for *Rakta Dhatu* it increases the *Raktadhatu* and cures *Pandu Vyadhi*.

##### **Medadhatu-**

*Shohana* of *Avshistha Kledaby Ruksha* and *Kasahya Rasa* of *Amalaki* which helps in the breakdown of *Avarodha* of *Srotas* and helps in proper nourishment of all *Dhatu*s.

##### **Oja:**

Healthy nourishment of all *Dhatu* helps in the formation of *Dhatvagni* which is responsible for the proper formation of *Oja*.

#### **Probable mode of action of Amalaki Choorna-**

In view of increasing Hb% *Amalaki Choorna* shows positive results but is not effective according to statistical analysis if we go through the clinical improvement of

patients we can see that there is a significant improvement in the quality of life of patients by using *Amalaki Choorna*. It is used in this study on the basis of the *Rasayana karma* of *Amalaki Choorna*. In *Aptarprnotha Pandu Vyadhi* there is *Dhatu Kshaya* and *Dhatu Durbalata* take place due to *Amalaki* this *Kshaya* and *Durbalata* gets vanished. Nourishment of all *Dhatu*, the formation of healthy *Dhatu* takes place.

Low Hb% is a significant feature of *Pandu Vyadhi*; this *Raktalpata* is corrected by means of an increase in Hb% due to the *Raktvardhan Karma* of *Amalaki*. *Amalaki* has a significant effect on all clinical features of *Pandu Vyadhi*. i.e., all symptoms of *Pandu Vyadhi* may be decreased due to *Panduhara Karma* of *Amalaki*. *Tridosaharaproperty* of *Amalaki* helps in vitiating *Vata*, *Pitta*, and *Kapha Doshasymptoms* like *Gaatrashoola* and *Akshikootshotha* decreased.

*Amalaki* increases digestive juices, does *Amapachana*, and is very useful in *vatanuloman*. The presence of ascorbic acid in *Amalaki* has a significant effect on iron bioavailability which may increase iron metabolism and haemoglobin synthesis. Thus, the cumulative effects of both drugs lead to the correction of metabolism, increase iron absorption, and improved blood formation in *Pandu*. The predominant *Dosha* of *Pandu* is *Pitta*, so the action of the drug is directly on the main *dosha* of *Pandu*. *Rasayanakarma* of *Amalaki* is very well known. *Pandu* is *Rasapradoshaja Vyadhi*, so *Amalaki* works perfectly here. Few studies said that iron deficiency anaemia can cause absorptive defects by damaging the epithelium layer of the small intestine. *Deepan* and *Pachana Karma* of *Amalaki* can correct the above defect of the intestine. *Amalaki* has the chelating ability of iron which bio availability of iron may enhance.

The chemical constitute of *Amalaki Choorna* is Vit. C is a water-soluble vitamin also known as ascorbic acid. Vitamin C plays a number of important roles in the body, including enhancing the absorption of iron. Vitamin C also aids in red cell absorption. Vitamin C deficiency leads to Anaemia or low red blood cell count. Anaemia can occur from a number of causes. Vitamin C deficiency anaemia occurs when your diet doesn't include enough vitamin C. Taking foods high in vitamin C along with foods rich in iron creates a more acidic environment in the stomach, which increases iron absorption. Iron is not well absorbed; adults normally absorb between 10 and 15 % of the iron they eat, and vitamin C deficiency has a higher risk of developing anaemia. Causes of vitamin C deficiency that can lead to anaemia include an inability

to absorb iron; these types of Anaemia can prevent by the use of Amalaki.

### Importance of Bheshajasevana kala-

Drug administration and its proper timing are very important in any disease. In Ayurved literature, it has its own important which is described as *Bheshajasevana Kala*.

*Amalaki Choorna* is given in *Paschatbhakta Kala* in the quantity of 2.5gm. *Paschatbhakta Kala* is very effective against vitiated *Vyan Vayu* and is used for *Balya Karma*. To breakdown, the *Dosha Dushya Samurchanawhich* starts from *Hrudyata* takes place in *Paschatbhakta Kala*. There is *Dhatu Durbalata* which leads to various symptoms this is *Dourbalya*, *Balakshaya* is vanished by *Amalaki Choorna* in *Paschatbhakta Kala*. *Pandu* is a disease in which mainly *Rasa* and *Rakta Dhatus* are affected the most. Later on, if not treated well; *Dhatus* others also get involved and converted into a multisystem disease. If the medicine is administered after the consumption of meals, it will come in direct contact with *Rasa-Rakta Dhatu* and significant improvement in disease condition may be observed.

### CONCLUSION

It is concluded that *Amalaki Choorna* is effective in *Pandu Vyadhi* with special reference to iron deficiency anaemia in reducing all the symptoms and increasing the Haemoglobin percentage of *Pandu Vyadhi*.

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