

ROLE OF PANCHAKARMA IN ANEMIA

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ABSTRACT

Blood acts as an important connective tissue in the transport of oxygen to all the cells similarly to excrete all the waste material from cells outside the body. In *Ayurveda* anemia can be considered under the broad umbrella of *Pandu Roga*. Many signs and symptoms of anemia like weakness, fatigue, shortness of breath on exertion, pallor, etc. are almost the same as Classical *Pandu Roga* mentioned in *Samhita*. Apart from *Shamana Chikitsa Panchkarma* can play a potential role in the management of *Pandu Roga*. It can also be used in the management of different types of anemia. *Panchakarma* treatment can be used directly or indirectly to manage *Pandu Roga* (anemia) like *Rakta Basti* in acute blood loss is directly compensate blood loss of body and other *Panchakarma* treatment will act on root causes of disease as *Majja Basti* will help in the Management of aplastic anemia. In this paper, there will be a detailed discussion on the Management of *Pandu Roga* (anemia) with *Panchakarma*

Keywords: Anemia, *Panchakarma*, *Pandu*, *Rakta Dhatu* and *Shamana Chikitsa*

INTRODUCTION

Detail description of *Pandu Roga* is found in a majority of *Ayurveda Samhitas*. It is referred to as *Pandu Roga* due to the predominance of *Pandubhavo* (pale-ness) everywhere in the body¹. *Pandu Rogi* suffers from decreased blood count/*Rakta Dhatu*, *Bala* (strength), *Varna* (complexion), *Sneha*, *Meda*, and *Oja*. The patient becomes *Nihsara* (loss of natural integrity, tone, and strength) and *Shithilendriya*. During this, there's vitiation of *Pitta Pradhana Vatadi Dosha* and *Raktadhatu* within the body². *Pandu* is stated under *Rasapradoshaja Vikara*³. An in-depth review of *Nidanapanchaka* (i.e., *Nidana*, *Purvarupa*, *Rupa*, *Upashaya*, and *Samprapti*) is useful for a clear understanding of minute aspects connected to the disease. This aids in the diagnosis and treatment of a disease with high precision. So, in this article *Nidanapanchaka* of *Pandu Roga* and the role of *Panchakarma* in *Pandu* have been reviewed from authoritative *Ayurvedic Samhitas* and textbooks.

Material and Methods

This article is based on a review of *Panchakarma* treatment and its efficacy in the management of *Pandu* (anemia) from available *Ayurvedic* texts, *Samhitas* as well as modern aspects.

Pandu: The different definitions of *Pandu Roga* are given in *Ayurvedic* texts. The disease in which a deep yellow color is imparted to the patient is known as *Pandu Roga*⁴. *Pandu Roga* is a disease that is characterized by *Pandu Varna*. The disease in which *Pandubhavo* is more termed is *Pandu Roga*⁵. The disease is named *Pandu Roga* wherein *Pandu*, *Harita*, and *Haridra Varnas* appear in the skin⁶.

Anemia

Anemia is derived from the Greek word 'anemia', meaning lack of blood. Anemia refers to a state in which the level of haemoglobin in the blood is below the normal range appropriate for age and sex. In other words, anemia is defined as a reduction in the concentration of circulating haemoglobin or oxygen-carrying capacity of blood below the level that is expected for healthy persons of the same age and sex in the same environment. According to the World Health Organization (WHO), anemia is defined as a haemoglobin

level of less than 13 g/dl in men and less than 12 g/dl in women⁷.

Samprapti

Due to the consumption of etiological factors *Doshas* Aggravates with a predominance of *Pitta Dosha* and afflicts *Dhatu*s primarily *Raktadhatu*, additional it produces laxity and heaviness within the *Dhatu*s. The heaviness of *Dhatu*s manifests because of the disturbance of the normal function of *Dhatu*s. Patients of *Pandu Roga* lose their vitality, complexion, strength, unctuousness, and other properties of *Ojas* due to the morbidity of *Dosha* and *Dushya*. That's why patients of *Pandu Roga* suffer from deficiency of *Rakta*, *Meda*, *Nihsara* (loss of essence) related to improper functioning of sense organs and discoloration⁸. Aggravated *Pitta* expelled from *Hrudaya* via ten blood vessels by powerful *Vata*, circulates everywhere the body. It reaches the area between *Twaka* and *Mamsa* and results in abnormal complexions like pale yellow, deep yellow, and greenish discoloration⁹. Aggravated *Pitta* is responsible for the less production of *Poshaka* (nutrient portion) from the *Rasa Dhatu* as a result depletion of *Rakta* takes place.

DISCUSSION

The treatment should be planned according to the aetiology- ***Pandu due to Santarpana / Apathya Ahara***—In *Santarpana Janya Vikara* function of *Rasa Dhatu* is hampered and as a result, *Pandu* is manifested¹⁰. *Pandu* can also be seen in *Bahu Doshaja Avastha*¹¹. *Chikitsa* of *Santarpanjanya Vikara* and *Bahudosha Avastha* mainly includes *Shodhana* therapy¹² which is also the main treatment of *Rasa Pradoshaja Vyadhi* as well as *Pandu Roga*¹³.

At the level of Nidanarthakara Roga – Pandu (Anemia) can be manifested in various other conditions like in *Raktatisara* (Ulcerative Colitis), *Arsha* (Bleeding Piles), in *Krumi* (Worm infestation), etc., Various *Panchakarma* treatment is useful to manage all these conditions. *Piccha Basti* is mentioned treatment of *Jivadaya Vyapada*¹⁴ and the choice of *Panchakarma* treatment in ulcerative colitis/*Arsha*. While *Shata Prasuti*¹⁵ and other *Basti* clear *Krumi* from intestines

which causes *Pandu* (*Krumi*). **Pandu due to Sneha Atiyoga** - Improper use of *Sneha* leads to different side effects, out of which is *Pandu*¹⁶. Treatment of such *Vyapada* is also *Panchakarma* like *Ullekhana* (*Vamana*), *Swedana* (fomentation), *Stransana* (purgation)¹⁷. Here *Pandu* occurs mainly due to disturbance of *Rasa Dhatu* function and *Panchakarma* Clears *Rasa Dhatu* and enhances its function of it. According to modern science (decreased RBC mass) ascribed to several prominent mechanisms leads to decreased oxygen-carrying capacity, some produce acute and others chronic forms¹⁸. Acute bleeding has a 25% proportion in the mechanisms of anemia. Though there is very promising and life-saving management in allopathy but in some extinct one can use *Raktabasti* to manage such conditions which are also given in the line of treatment in conditions like acute blood loss in *Samhitas*. Iron Deficiency has also a 25% proportion in the mechanisms of anemia. Iron fortification remains the pillar of efforts aimed toward the treatment or prevention of iron deficiency. While describing the line of treatment for *Pandu* (anemia) *Acharyas* indicated that one should go for *Shodhana Karma* after *Samyaka Shuddha Koshta*¹⁹ one should follow a diet regimen and take medicine according to *Dosha*. Iron supplements either in form of *Ahara* or *Aushadha* will be absorbed optimally and utilized properly as *Kayagni*, increases after proper *Shodhana Karma*²⁰. Chronic Illness or Inflammation – The anemia of chronic illness and inflammation is now assumed to be in part defects of iron metabolism and also has a 25% proportion in the mechanisms of anemia. *Pandu* is manifest in several chronic illnesses and while following the *Chikitsa Sutra* of the Main disease one can not only treat and/or manage such disease but can also get improvement in *Pandu*. Like *Basti* is mentioned in numerous chronic diseases like *Amavata*, etc. Here *Basti* not only treats the main disease but also helps to improve other symptoms of the disease like *Pandu*. Gut microbiota modulation through *Basti* is one of many hypotheses of *Basti Karmukata*. Modulation of Gut microbiota can affect the iron absorption by converting unavailable iron into its available form or creating metabolites that indirectly increase the iron absorption in the gut²¹.

Marrow failure – has a 15% proportion in the mechanisms of anemia. Decreased RBC Production results from failure of the bone marrow to produce an adequate number of mature red cells as may occur in aplastic anemia. *Basti* Particular *Anuvasan* (with *Majja*) and *Rakta Basti* may play an important role while in the management of this condition. *Anuvasana Basti* improves the functionality of *Raktadi Dhatu*²². So *Anuvasana* with *Majja Sneha* not only affects the *Rakta Dhatu* but also nourished the bone marrow and helps to manage the aplastic type conditions. One can Plan *Karma Basti* with this concept as *Aacharya Shushrut* has mentioned 9th *Anuvasana Basti* effects on *Majja Dhatu*²³. According to *Charaka Acharya Pandu* is *Shukra Pradoshaja Janya Roga*²⁴ so *Karma Basti* with *Majja* or other *Sneha* may help in such types of *Pandu Roga*. Direct use of *Rakta* in *Basti* is also used fully in conditions like thalassemia²⁵. As *Aacharya Charaka* has advised the use of *Rakta* with *Darbha* in such situations. Megaloblastosis has a 10% proportion in the mechanisms of anemia. Failure to produce an adequate number of mature red cells may occur in conditions such as Vitamin B₁₂ or Folate deficiency, despite hyperplastic bone marrow. Normally, Vitamin B12 combines with intrinsic factors in the stomach²⁶. In some autoimmune conditions antibodies bind with intrinsic factors so, vitamin B12 can't combine, that's why B12 decreases in blood. This autoimmune condition can be compared with the "*Ama*" of *Ayurveda*. This *Ama* can remove from the body by *Panchakarma* like *Vamana*, *Snehana*, *Dipana*, *Pachana*, etc.²⁷

CONCLUSION

Mainly *Rasa* and *Rakta Dhatu* are involved in *Pandu*, but in some conditions like aplastic anemia, etc. *Majja* and *Shukra Dhatu* are also involved. By *Panchakarma*. *Rasa* and *Rakta Dhatvagni* functions can be balanced. With proper Dose and duration (*Matra* and *Kala*) one can also use *Panchakarma* to treat *Majja* and *Shukra Pradoshja Pandu*. That's why *Panchakarma* play important role in *Pandu Roga Chikitsa*. Causes of nutrient deficiency in nutritional s include inadequate dietary intake, increased nutrient losses (e.g., blood loss from parasites, haemorrhage),

impaired absorption (e.g., lack of intrinsic factor to aid vitamin B12 absorption, which impairs iron absorption), or altered nutrient metabolism. While nutrient supplementation is a common preventive and treatment strategy for nutritional anemia. *Panchakarma* can play a vital role to supply nutrients directly or indirectly and disease can be managed efficiently.

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