

A Conceptual Study on the Role of *Amalaki Avleha* in *Pandu roga*

Dr. Samiksha Sharma

Assistant professor in Department of PG studies in Kayachikitsa, JIAR, Jammu, India

Abstract: In the present era, human beings are subjected to enormous amount of stress and strain that cause a deleterious effect on the quality of life. Environmental factors and poor quality of nutrition compounds the stress and strain. Iron deficiency anaemia is one of the wide spread diseases in India especially among the poor people and women. It is a systemic disease which involves multiple systems rather than a mere haematological condition associated with Anaemia. Ayurveda can provide better management not only in substituting and replenishing deficient nutrients but also can play a vital role in correcting metabolism. *Pandu Roga* has similarity with Anaemia of modern system in aspects of etiology and sign, symptoms. As Anemia is a very common prevalent disease in the society and the side effect of oral allopathic iron preparations like constipation, gastric irritation etc. are very common, therefore there is need of better alternative like *Amalaki avleha*. It has contents *Amalaki, Pippali, Yashtimadhu, Draksha, Shunthi, Vanshlochan, Sharkara, Madhu*, these drugs work at the level of *Dosha, Dushya, Agni and Srotas*.

Keywords: Anemia, *Amalaki avleha, Aam, Pandu roga, Dhatu, Dosha, Agni, Srotas*

1. Introduction

Ayurveda is an ancient system of healthcare which uniquely perceives an intimate relation between life style of an individual to his/her health. The pledged purpose of *Ayurveda* is to ensure a healthier, longer and happier life to humanity. The time is ripe enough to seriously take up productive researches in disorders like *Pandu roga* where *Ayurveda* can offer an effective treatment. *Pandu* is a *Varnopalakshita Vyadhi*, where in paleness is pathognomic. *Pandu* is a *Pitta Pradhan Vyadhi* and since *Pitta* is responsible for normal colour of body, so if it gets vitiated, impairment of colour and complexion occurs. In *Ayurveda*, *Pandu Roga* is considered as an individual disease with its own specific *Nidana, Purvaroop, Rupa, Samprapti* and *Chikitsa*. Globally, Anemia affects 1.62 billion people (95% CI: 1.50-1.74 billion) which correspond to 24.8% of the population (95% CI: 22.9-26.7%).¹ Anaemia can be caused by a large number of causes, including nutritional deficiencies, acute or slow loss of blood due to trauma or disease, destruction of red blood cells due to various metabolic and immunological abnormalities or toxins, disease of bone marrow, general systemic disease like infections, various kidney disease. Iron deficiency anaemia occurs when iron losses or physiological requirements exceed absorption.² It is a systemic disease which involves multiple systems rather than a mere haematological condition associated with Anaemia. *Pandu Roga* has similarity with Anaemia of modern system in aspects of etiology and sign, symptoms.³ Although, there are many combinations of oral iron supplementation, therapeutic failures are common with oral iron replacement, shortcoming being gastrointestinal tract's limited capacity for iron absorption. In conventional system of medicine, there is effective treatment of Anaemia with considerable result but that is only for acute deficiency Anaemias. No significant therapy is available for chronic Anaemias which occur due to metabolic defect. *Ayurveda* can provide better management not only in substituting and replenishing deficient nutrients but also can play a vital role in correcting metabolism. *Amalaki Avleha* is non-iron

formulation indicated in *Panduroga Adhikara* in *Bhaishajya Ratnavali*. (12/116-119).

2. Material and Methods

For this article literature review is done from *Charak Samhita, Sushruta Samhita, Ashtang Hridayam, Madhav Nidana, Rasendra Sara Sangraha, Bhaishajya ratnavali*

Nidana of Pandu Roga

Aharaja Nidana

“क्षाराम्ललवणात्युष्णवरुधासात्म्यभोजनात्।
वनष्पावमाषविण्याकवतलतैलवनषेवणात्”⁴

Excessive intake of *Kshara, Amla, Lavana, Ati ushna, Virrudha Bhojana, Asatmya Bhojana*, Excessive intake of *Nispava, Masha, Pinyaka, Tilatail* Excessive intake of *Madya, Mrid bhakshana*, Excessive intake of *Kashaya Rasa, Katu*

Viharaja Nidana:

According to *Acharya Charak*

Sleeping, Exercise and Sexual Intercourse even before the food is not properly digested (*Vidagdhe Anne Diwa swapana, Vyayama, Vyavaya*). Suppression of natural urges (*Vega Vidharana*). Affliction of mind with *Kama, Chinta, Bhaya, Krodha, Shoka*, Improper administration of *Pancha Karma Therapies (Pratikarma)*, Transgression of prescribed seasonal regimen (*Ritu-Vaishmaya*).⁵

According to *Acharya Sushruta*

Rakta gets vitiated by *Amla lavana Bhojana, Ati Maithuna, madhya sevan, Diwa swapna* etc⁶

In today's lifestyle, excessive intake of *Asatmya Aahar, Virrudh bhojana* like junk food, baked food etc. may inhibit the normal physiology by producing *ama* that can lead to disturbance of the digestive and assimilative

Volume 13 Issue 4, April 2024

Fully Refereed | Open Access | Double Blind Peer Reviewed Journal

www.ijsr.net

process. Thereby leading to malnutrition and ultimately disease like *Pandu roga* occurs. Excessive *pitta Vardhaka aahara vihara* leads to *Dushti* of *Rakta dhatu*

Viharaj Nidana like excessive exercise, excessive sexual act, excessive physical activity etc can disturb the *Samyaawastha* of *Dosha* and leads to occurrence of disease. *Acharya sushruta* mentioned *Ativyayam* as one of the cause of *Pandu roga*.

Mental activity like *Kama, Chinta, Bhaya, Krodha* can disturb the haemostatic condition of body, which can cause disease like *Pandu roga*. In our country, maximum population falls in lower-middle income groups. Therefore, in all type of *Pandu roga, Chinta* can be considered as one of the constant causative factors.

In *Charak Samhita*, the general etiology or *Samanya Nidana* of *Pandu roga* is described which is mainly related to *Aharaja, Viharaja, and Manasa Bhava*

In *Sushruta Samhita Nidana* of *Pandu roga* are not as descriptive as in *Charak Samhita*.

Acharya Vagbhatt in *Ashtang Hridayam* mentioned *pitta as Samanya Pandu roga nidaan. Madhava Nidana* follows *Sushruta Samhita* in *Samanya Nidana* of *Pandu roga*.

Our faulty dietary habits and lifestyle produces *ama* which cause *Agnimandya* and ultimately *Amayukta* ahararas produced. It hampers *Ras Dhatu utpatti* and manifests *Pandu roga*.

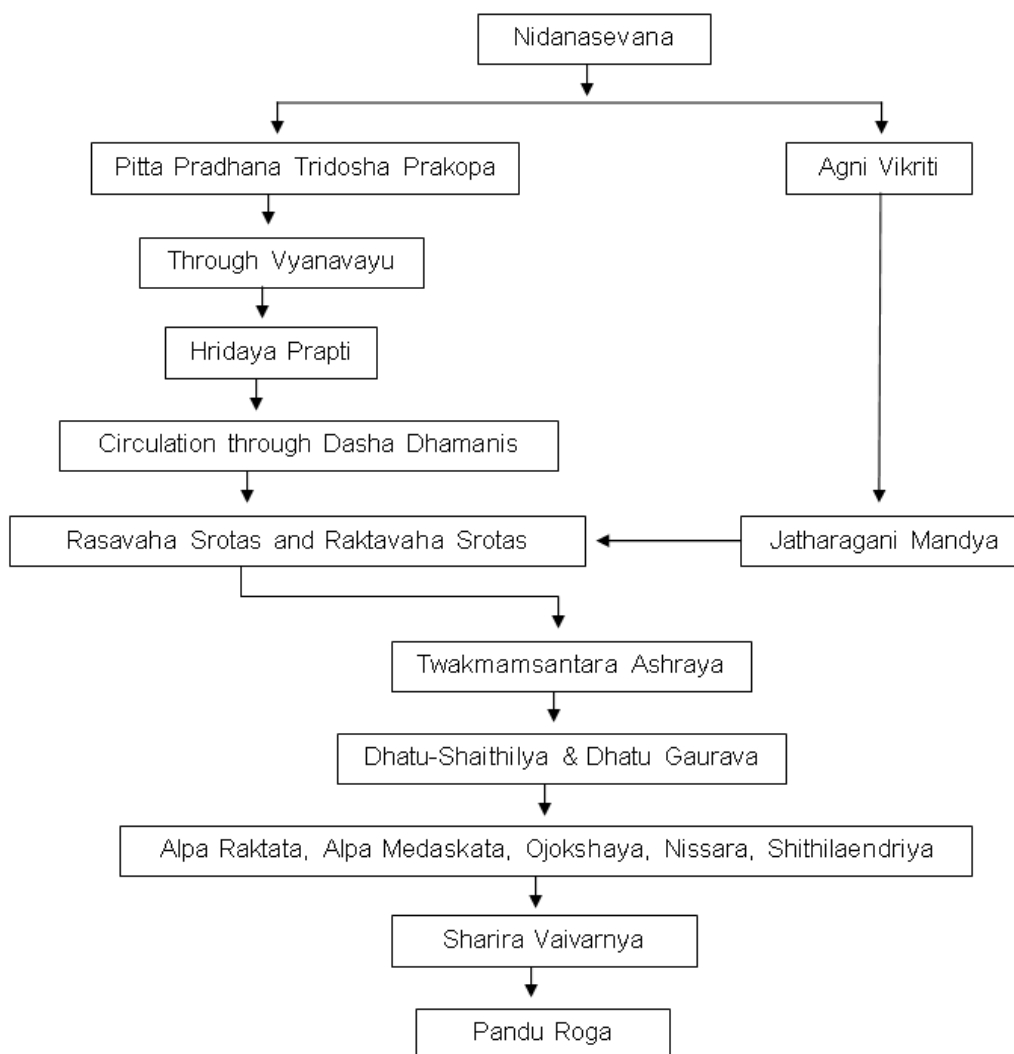
Poorava Rupa

Ashtang Hridayam has mentioned *poorvarupa* same as *Charak Samhita*. Except these *Ashtang Hridayam* also added *Saad* (malaise), *Alpavahnita* (less digestion power), *Peeta mutratwa* (yellowish tint of urine), *Aruchi* (anorexia). *Madhava Nidana* has mentioned same *Poorvarupa* as *Sushruta Samhita*.⁷

Rupa

Most of the Acharyas mentioned only *Doshik rupa* of *Pandu roga* not the *Samanya rupa* of *Pandu roga* but *Charak Samhita* and *Ashtang Hridayam* also mentioned the *Samanya rupa* of *Pandu roga*.

Samprapti of pandu roga



Mritika bhakshana janya pandu roga;

Charaka Samhita, Ashtang Hridayam and Madhava Nidana have described the *Mritika bhakshana janya pandu*. Major etiological factor is *Mritika bhakshana*. In one, who is addicted to this any of the three *Doshas* may become provoked.

Madhur soil-Kapha prakopa

Ushara soil-Pitta prakopa

Kashaya soil-Vata prakopa

The person who is having habit of eating earth, the earth produces roughness in *Dhatus* and enter in *Srotas* thus obstructing the channels. And at last, destroys the strength (*BALA*), complexion (*VARNA*) and power of digestion (*AGNI*).

Patient manifests with swelling on cheeks, orbit, and eye brows, swelling of feet and navel. Worm infestation which is one of the causes of *Pandu roga* is very much related to *Mritika bhakshana*.

S. no.	Drugs	Botanical name	Family
1	<i>Amalaki</i>	<i>Embelica officinalis</i>	Euphorbeaceae
2	<i>Pippali</i>	<i>Piper longum</i>	Piperaceae
3	<i>Yashtimadhu</i>	<i>Glychrriza glabra</i>	Leguminaceae
4	<i>Draksha</i>	<i>Vitis vinifera</i>	Vitaceae
5	<i>Shunthi</i>	<i>Zingiber officinalis</i>	Zingiberaceae
6	<i>Vanshlochan</i>	<i>Bambusa arundinaceae</i>	Graminae
7	<i>Sharkara</i>	<i>Sacharaum officinarum</i>	Graminae
8	<i>Madhu</i>	Honey	

S. no.	Drug	Rasa	Guna	Veerya	Vipaka	Doshghanta	Karma	Rogaghanta
1	<i>Amalaki</i>	<i>Panch Rasa Amla Pradhan (Lavan Varjita)</i>	<i>Guru, Laghu Ruksha</i>	<i>Sheeta</i>	<i>Madhura</i>	<i>Tridoshahara Pittahara Esp.</i>	<i>Rasayan, Balya,</i>	<i>Rasayan, Balya, Paitikvikarhar, Agnimandyahar, Daurbalya, Shothhar</i>
2	<i>Pippali</i>	<i>Katu</i>	<i>Laghu Snigdha, Tikshna,</i>	<i>Anushna Sheet</i>	<i>Madhura</i>	<i>Kapha Vatashamak</i>	<i>Deepana, Yakritutejaka, Raktavardhak, Rasayan</i>	<i>Shotha, Aruchi, Agnimandya, Yakridvikar, Pleehavidhi, Panduraktavikara</i>
3	<i>Yashtimadhu</i>	<i>Madhura</i>	<i>Guru, Snigdha</i>	<i>Sheeta</i>	<i>Madhura</i>	<i>Vatta Pittashamak</i>	<i>Varnya, Jeevanya, Rasayan, Balya</i>	<i>Raktaavikara, Raktalpta, Samanya, Dourbalya,</i>
4	<i>Draksha</i>	<i>Madhura</i>	<i>Snigdha, Guru, Mridu</i>	<i>Sheeta</i>	<i>Madhura</i>	<i>Vatapitta Shamaka</i>	<i>Trishnanigrahan, Medhya, Jeevaniya, Raktaprasadan, Raktapiitashamak</i>	<i>Bhrama, Pandu, Kamla, Swarbheda, Dourbalya, Shosha, Kasa</i>
5	<i>Shunthi</i>	<i>Katu</i>	<i>Laghu Snigdha (Shunthi)</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Vatakapha Shamaka</i>	<i>Rochana, Deepna, Pachana, Shleshmahara,</i>	<i>Shothahara, Ajeerna, Agnimandya, Aruchi, Anaha, SmanyaDourbalaya,</i>
6	<i>Vanshlochan</i>	<i>Madhura, Kashaya</i>	<i>Laghu Ruksha Teekshna,</i>	<i>Sheeta Veerya</i>	<i>Madhura</i>	<i>Vattapittashamaka</i>	<i>Deepana, Pachana, Krimighana, Raktastambhak, Shwashara, Balya, Brihman,</i>	<i>Agnimandya, Ajeerna, Krihami, Shawas, Kasa, Raktavikar, Atisara, Mootrakrichara,</i>
7	<i>Sharkara</i>	<i>Madhura</i>	<i>Sheeta</i>	<i>Sheeta</i>	<i>Madhura</i>	<i>Vattapittaharkaphakar</i>	<i>Asrahrut, Dahahrut, Shukrakarini, Chakchushya</i>	<i>Murcha, Chardi, Jwara, Kushtha, Vrana, Shwasa</i>
8	<i>Madhu</i>	<i>Madhura, Kashaya,</i>	<i>Guru Ruksha,</i>	<i>Sheeta</i>	<i>Katu (As. Sa. Su.5/52) (Ch), Tridoshnashak (Su)</i>	<i>Vatakarak, Kaphapittashamak (Ch), Tridoshnashak (Su)</i>	<i>Vishaghana Trishnanakshak, Hikkashak, Vranaropak, Bruhmna, Varnya, Medohara,</i>	<i>Hikka, Meha, Chardi, Shwasa, Kasa, Vranashodhak</i>

Probable Mode of Action of AMALAKI VALEHA:

Most of the ingredients present in *Amalaki Avleha* have *Katu* and *Madhura Vipaka*, *Katu Vipaka* increases the

metabolism and *Madhura Vipaka* does the *Dhatu Poshana* and increase the vital strength.

It contains well known *Rasayana* drugs like *Amalaki*, *Pippali* that provides adequate nourishment to the *dhatu* which may improve *Dhatu-shaithilya*, *Daurbalya* and *Ojogunakshaya*. As seen in the *Samprapti* of *Pandu Roga*, aggravated *Pitta Dosha* afflicts *Jatharagni*, leads to *Rasa Dhatu Dushti* and ultimately other *dhatu*s disturbing the *Dhatu Poshana Parampara* leads to *Pandu Roga*.

The *Deepana*, *Pachana* properties of drugs like *Shunthi*, *Pippali* corrects *Agnimandya* and alleviates *Ama* i.e. counteracts the poor digestion found in *Pandu Roga*. Thus, breaks the pathogenesis of the disease.

Amalaki is *Panch Rasa Amla pradhan (lavan varjita)*, have *Guru*, *Laghu*, *Ruksha Gunas*, *Madhura Vipaka*, is *Tridoshahara esp. Pittahara*, have *Rasayan*, *Balya*, *Vrishya Karmas*, is *Paaittikvikarahar*, *Agnimandyahar*, *Daurbalyanashak*.⁸ *Amalaki* possesses *Pitta Pradhana Tridosha Shamak* action so directly acts on the major *Dosha* involved in the *Samprapti* of *Pandu*, bringing about *Shaman* of *Prakupita Doshas*. Being a *Rasayana* it prevents *Ojokshaya*. The *Deepana*, *Anulomana*, *Shonitsthapana Karma* of *Amalaki* help in alleviating the *Agnimandya*, *Daurbalya*, *Shrama* like symptoms in *Pandu Roga*.⁹ Various studies have been performed for getting insights about the therapeutic effect of *Amalaki* and its chemical constituents. It has been found that *Amalaki* exhibits promising antioxidant potential by virtue of antioxidants present in it which include Vitamin C, bioflavonoids, flavones, polyphenols, and carotenoids.¹⁰ They work against free radical-induced oxidative damage thereby increasing the anabolic activity in body. Also the oxidative stress, i. e., an increase in oxidants or a decrease in antioxidant capacity is one of the potential biochemical mechanisms involved in the pathogenesis of IDA, owing to these properties *Amalaki* might have help in *Samprapti Vighatana* of *Pandu*. *Amalaki* is also a potent source of Vitamin C (ascorbic acid) which is the most potent enhancer of non-heme iron absorption by forming a chelate with ferric iron at acid pH that remains soluble at the alkaline pH of the duodenum.¹¹

Shunthi has *Katu Rasa*, *Laghu Snigdha Guna*, *Ushna Veerya*, *Madhura Vipaka*, is *Vatakaphashamak*, have *Rochana*, *Deepna*, *Pachana*, *Shleshmahara* properties, works in *Agnimandya*, *Aruchi*, *Anaha*, *Samanya Dourbalaya*.¹² Since, *Pandu* is a *Ruksha Guna Bhuyishtha Vyadhi*, *Shunthi*, *Pippali*, *Yashtimadhu* having *Snigdha guna* may have a significant role in *Pandu*.

Pippali has *Katu rasa*, *Laghu Snigdha*, *Tikshna Guna*, *Anushna Sheeta Veerya*, *Madhura Vipaka*, is *Kapha Vatashamak*, has *Deepana*, *Yakritutejaka*, *Raktavardhak*, *Raktashodhaka*, *Rasayan properties*, works in *aruchi*, *Agnimandya*, *Yakridvikar*, *Pleehavidhi*, *Mastishka*, *Panduraktavikara Pippali* is also said to be used in *Pandu* with different *Anupanas* (*B. P. N Haritakyadi Varga* 55-58), (*Su utt44/22*), (*A. Hr. ci 16/38*). *Pippali* is a proved drug to increase bioavailability.¹³ Due to its *Katu Rasa*, *Pippali* is *Srotoshodhaka* so it clears the obstruction in *Srotas* and assist in *Samprapti Vighatana* of *Pandu roga*,

moreover, *Deepan*, *Pachana* and *Vatanulomana* properties of *Pippali* improves the digestion and reduces *Ama Utpatti*, this counteracts poor digestion found in *Pandu Roga*. *Pippali* is *Yakritutejaka*, acts on *Yakrita* and *Pleeha* (the *Moola Sthana* of *Ranjaka Pitta*, which does the *RasaRanjana*), thereby proper *Rasadhatu* formation occurs. It forms one of the ingredients in various compound preparations used for anorexia, dyspepsia (CSIR, 1969).

Yashtimadhu possess *Madhura Tikta Rasa* which pacifies *Pitta*. Its *Gunas* are *Guru*, *Snigdha* which contradicts *Laghu*, *Tikshna Guna* of *Pitta*, and also pacifies *Vata*. *Sheeta Veerya* aids in *Shamana* of the *Ushna Veerya* of *Pitta*. *Vipaka* being *Madhura* also contributes to *Shamana* of *Pitta*. It has *Varnya*, *Jeevanya*, *Rasayan*, *Balya* properties, works in *Raktaavikara*, *Raktalpta*, *Samanya Dourbalya*, *Vatavikara*.¹⁴ As per *Charaka*, *Yashtimadhu* is a *Dravya* mentioned under *Shonithasthapana Gana*.

Madhu has *Madhura*, *Kashaya Rasa*, *Guru Ruksha Guna*, *Sheeta Veerya*, *Katu Vipaka*, is *Tridoshnashak (su)*, and *Vatakarak*, *Kaphapittashamak (ch)*, have *Varnya*, *Bruhmna* properties. One of the important properties as *Yogovahi* (bioenhancer) by which they enhance the medicinal qualities of the preparation and also help them to reach the deeper tissues.¹⁵ Honey increases antioxidant agents like vitamin C concentration by 47%, it increases serum iron by 20% and decreases plasma ferritin by 11%¹⁶. The presence of a variety of flavonoids, phenols, vitamins, minerals and antioxidant enzymes and other factors in the honey composition increases its anti-inflammatory and anti-oxidant properties. Previous animal studies reported that daily administration of raw honey could improve haematological parameters and increase hemoglobin levels and red blood cell counts.¹⁷

Sharkara have *Madhura Rasa*, *Sheeta Guna*, *Sheeta Veerya*, *Madhura Vipaka*, is *Vatapittahar-Kaphakar*, pacifies the *Pitta dosha*, might have helped in subsiding the symptoms of *Pandu*.¹⁸

Vanshlochan have *Madhura Kashaya Rasa*, *Laghu Ruksha Teekshna Guna*, *Sheeta Veerya*, *Madhura Vipak*, *Vatapittashamak*, have *Deepana*, *Pachana*, *Krimighana*, *Balya*, *Brihman* properties and works in *Agnimandya*, *ajeerna*, *raktavikar*. AFI. Owing to these properties it is useful in diseases of blood and generaldebility. Acts as Diuretic, Tonic, Rejuvenator.¹⁹

Draksha has *Madhura Rasa*, *Snigdha Guru*, *Mridu Guna*, *Sheeta Veerya*, *Madhura Vipaka*, is *Vatapitta Shamak* have *Jeevaniya*, *Raktaprasadan*, *Raktapiitashamak*, *Balya* properties, works in *Pandu*, *Dourbalya* have as *Raktaprasadaka & Balya*, has been mentioned directly in *Roghghanta* of *Pandu*. *Draksha* fruit contains dehydro ascorbic acid i.e. oxidized form of ascorbic acid, which helps in the absorption of the available iron.⁹⁹ *Draksha* contains Alanine which is a non-essential amino acid²⁰, that has been shown to help protect cells from being damaged during intense aerobic activity, when the body catabolize muscle protein to help produce energy this might have reduced the symptom of *Daurbalya*. Also in

Charaka, Madhu, Yashtimadhu, Sharkara are said to be Shonitsthapak, Pippali as Raktavardhak, Draksha as Raktaprasadhaka, Amalaki as Vayasthapaka.

3. Conclusion

Pandu is a Piita Pradhan Tridoshaja Vyadhi. Pandu Roga can be effectively compared with Anaemia on the ground of its similarity in sign, symptoms, complications and treatment point of view. In conventional system of medicine there is effective treatment for Anaemia with considerable results but still there are some side effects like intolerance, nausea, constipation etc. Also there is Gastrointestinal tract's limited capacity for Iron absorption, these shortcomings could be effectively treated with holistic approach of Ayurveda which should include dietary factors, physical and environmental factors is necessary to prevent incidence of Pandu roga and there are number of Ayurvedic medicines available to cure this disease. So, Ayurvedic preparation like AMALAKI ALEHA are safe in therapeutic doses and should be recognized by evidence based research

References

- [1] International Education and Research journal Vol.2, Issue 10, September 2016.
- [2] Davidson's principles and practise of medicine, 20th edition Page no. -1001
- [3] Agnivesha: charak samhita, revised by Charak, Dridhbal with commentary of Chakrapanidath edited by Yadavji Tikramji acharya, chaukhambha Sanskrit santhan, Varanasi, Chikitsa Sthan, chapter 16, verse 4-5, reprint (2011), pageno. -526.
- [4] Charaka-Charaka Samhita, vidyotini teeka, , 2nd part, Adhyaya 16/6, Pandit kashinath
- [5] Charaka-Charaka Samhita, vidyotini teeka, , 2nd part, Adhyaya 16/7, pt. kashinath shastri, Dr. Gaurakhnath chaturvedi, Ed. Chaukhamba, Varanasi, 2017 Charaka-Charaka Samhita, vidyotini teeka, , 2nd part, Adhyaya 16/7-9, pt. kashinath shastri, Dr. Gaurakhnath chaturvedi, Ed. Chaukhamba, Varanasi, 2017
- [6] Sushruta Samhita, Ayurveda-tatva-sandipika commentary Edited by Ambikadutta shastri; Chaukhamba Sanskrit sansthan varnasi, Edition reprint 2004. Sushruta Samhita uttartastra 44/3.
- [7] Sushruta Samhita, Ayurveda-tatva-sandipika commentary Edited by Ambikadutta shastri; Chaukhamba Sanskrit sansthan varnasi, Edition reprint 2004. Sushruta Samhita uttartastra 44.
- [8] Mishra BS, editor.11th edition Varanasi: Chaukhamba Sanskrit Sansthan; 2004. Bhavprakash Nighantu of Bhavmisra, Haritakyadi Varga, 1/39-40; p.10. [Google Scholar]
- [9] (R. N. amradi varga,),(B. P. Haritkyadi varga)
- [10] Urvi R Dave & Anup Thakar: A Clinical Study of Panduroga w. s. r. To Iron Deficiency Anemia and Its Management with Dhatriyarihta and Pandughna Vati 1922 www. iamj. in IAMJ: Volume 3; Issue 7; July-2015.
- [11] Sean R. Lync et al, 1980, Annals of the New York Academy of sciences, Vol335, issue-1)
- [12] P. C. Sharma, 2005, Database on medicinal plants used in Ayurveda and Siddha, vol.5, p-315.
- [13] P. C. Sharma, 2005, Database on medicinal plants used in Ayurveda and Siddha, vol.3, p-561.
- [14] Poonam P Khot, Gujarat International Ayurvedic Medical Journal, (ISSN: 2320 5091) June, 2014.
- [15] Noori S Al-Waili Journal of Medicinal food, 2003.
- [16] Sulaiman SA, Ab Wahab MS. Honey: a novel antioxidant. Molecules.2012.
- [17] P. C. Sharma, 2005, Database on medicinal plants used in Ayurveda and Siddha, vol.8, p-442.
- [18] Dr. Geetika Kadwalia et al. World Journal of Pharmaceutical Research Volume 7, Issue 08, 311-322.
- [19] G Sri Harshitha et al, Ayushdhara | March -April 2020| Vol 7| Issue 2
- [20] Dr. Nidhi Garg et al, IJSR, Volume 6 Issue 3, March 2017