

A case study highlighting the impact of Brahmi (*Bacopa monnieri* (Linn.) Pennell.) Panchanga Churna in the management of Pandu Roga

Daniel L^{1*}, Lakshmi AV²

DOI:10.21760/jaims.10.2.53

^{1*} Lidia Daniel, Post Graduate Scholar, Department of Dravyaguna, Dr BRKR Government Ayurvedic Medical College, Hyderabad, Telangana, India.

² A Vijaya Lakshmi, Professor and HOD, Department of Dravyaguna, Dr BRKR Government Ayurvedic Medical College, Hyderabad, Telangana, India.

Introduction: Pandu is characterized mainly by Vaivarnya of body with other Lakshanas like Agnimandya, Daurbalya, Angamarda etc. and can be correlated to Anaemia in contemporary medicine. In the present study the patient is a 26-year-old female who presented with symptoms like Pandutwa in Anana Netra Nakha (Pallor of face, sclera and nails), Hritspandanam (palpitation), Dourbalya (general weakness), Hata Anala (diminished digestive power), Bhrama (giddiness) and hair fall. Brahmi (*Bacopa monnieri* (Linn.) Pennell.) is an important drug of Ayurveda classical texts and Indian Materia medica and well known as a Medya and Rasayana, is taken to evaluate its clinical efficacy in the management of Pandu Roga.

Objective: To evaluate the efficacy of Brahmi (*Bacopa monnieri* (Linn.) Pennell.) Panchanga Churna in the management of Pandu Roga.

Materials and Methods: The study was conducted on a woman of 26 years, for a period of 120 days. 5g of Brahmi Panchanga Churna was given twice daily. No specific diet change was instructed during the course of treatment. Clinical symptoms and hematological parameters were documented before, during and after treatment.

Results: After using Brahmi Panchanga Churna, 5 g twice daily for 120 days, without any specific change in diet habit, a noticeable improvement in symptoms is seen and Hb% is enhanced from 9 g/dL to 11 g/dL.

Conclusion: The results suggest that Brahmi (*Bacopa monnieri* (Linn.) Pennell.) Panchanga Churna is significantly effective in the management of Pandu Roga.

Keywords: Panchanga Churna, Vaivarya, Rasapradoshaja Vikara, Pandu Roga, Anaemia, Iron Deficiency, Nutritional Deficiency

Corresponding Author

Lidia Daniel, Post Graduate Scholar, Department of Dravyaguna, Dr BRKR Government Ayurvedic Medical College, Hyderabad, Telangana, India.
Email: drldidianigi@gmail.com

How to Cite this Article

Daniel L, Lakshmi AV, A case study highlighting the impact of Brahmi (*Bacopa monnieri* (Linn.) Pennell.) Panchanga Churna in the management of Pandu Roga. J Ayu Int Med Sci. 2025;10(2):367-372.
Available From
<https://jaims.in/jaims/article/view/4335/>

To Browse



Manuscript Received
2025-01-12

Review Round 1
2025-01-22

Review Round 2
2025-02-05

Review Round 3
2025-02-15

Accepted
2025-02-25

Conflict of Interest
None

Funding
Nil

Ethical Approval
Not required

Plagiarism X-checker
11.36

Note



© 2025by Daniel L, Lakshmi AV and Published by Maharshi Charaka Ayurveda Organization. This is an Open Access article licensed under a Creative Commons Attribution 4.0 International License <https://creativecommons.org/licenses/by/4.0/> unported [CC BY 4.0].



Introduction

Ayurveda is one of the most renowned traditional systems of medicine that has survived and flourished from ages till date. There are many avenues still to be explored by the researchers, practitioners and experts in the field who carry the responsibility of keeping the traditional systems of medicine alive and contributing to their growth in the future. In *Ayurveda*, *Pandu Roga* is considered as a specific disease with detailed *Nidana*, *Purvarupa*, *Rupa*, *Samprapati* and *Chikitsa*. An effort has been made to understand the *Pandu Roga* according to *Ayurvedic* classics. *Pandu* is characterized by *Pandu Varnya*[1] of body with other *Lakshanas* like *Agnimandya*, *Daurbalya*, *Angamarda* etc. and can be correlated to Anemia in contemporary medicine. In Greek the word Anaemia means a lack of blood. More correctly, it is the deficiency of haemoglobin and there are several grades for this deficiency. Anaemia can result from a number of reasons, like nutritional deficiencies, acute or chronic blood loss due to trauma or diseases, destruction of red blood cells by various metabolic and immunological abnormalities or toxins, disease of the bone marrow, general systemic diseases like infections and varieties of cancers and kidney failure.[2]

Anaemia affects all age groups. However, most susceptible groups are pregnant women and young children. In milder form, Anaemia is "silent" & deprived of symptoms. Without treatment, Anaemia can worsen & become an underlying cause of chronic ill-health, such as impaired fetal development during pregnancy, delayed cognitive development & increased risk of infection in young children & reduced physical capacity in all people. If haemoglobin level is very low (less than 6 gm) Anemia needs to be corrected on an urgent basis. There is no doubt that preventive measures in the form of proper dietary supplements & malabsorption preventions are primarily preferred choice of treatment. The disease causes mild, moderate or even severe degree of morbidity & rarely mortality. *Brahmi* (*Bacopa monnieri* (Linn.) Pennell.) is an important drug of *Ayurveda* classical texts & Indian Materia medica. *Brahmi* forms an ingredient in many *Ayurvedic* formulations viz., *Brahmi Rasayana*, *Brahmi Ghrita*, *Brahmi Taila*, *Brahmi Vati* & *Sarasvatarishta* & has been recommended as medication for treatment of anaemia,

Asthma, epilepsy, insanity, and the management of a range of mental conditions including anxiety, lack of concentration, poor cognition, and as an energizer for activating the central nervous system. *Bhavaprakasha* has mentioned the usage of *Brahmi* in *Pandu Roga* in *Guducyadi Varga*. [3]

ब्राह्मी हिमा सरा तिक्ता लघुर्मध्या च शीतला ।
कषाया मधुरा स्वादुपाकायुष्या रसायनी ॥
स्वर्या स्मृतिप्रदा कुष्ठपाण्डुमेहास्रकासजित् ।
विषशोथज्वरहरी तद्वन्मण्डूकपर्णिनी ॥ (B P: Guduchyadi Varga/236-237)

The present clinical study has been planned with *Brahmi* (*Bacopa monnieri* (Linn.) Pennell.) which has a *Panduhara* property according to *Bhavaprakasha Nighantu*. *Brahmi* is selected because it is easily available, non-toxic, safe for oral administration and cost effective. The *Panduhara* property of *Brahmi* is mentioned by *Kaiyadeva Nighantu*, *Dhanwantari Nighantu* and *Madanapala Nighantu* also.

Case Report

Vyakthi Vrittantam (Subject's Personal History)

Name: XYZ
Diet: Vegetarian
Age: 26 years
Appetite: Reduced
Marital status: Married
Bowel: Regular
Occupation: House wife
Sleep: Disturbed
Height: 157 cm
Micturition: Normal
Weight: 57 kg
Menstrual history: Regular
Bala: Madhyama

Addictions: None

Pradhana Vedana & Avadhi (Chief Complaint with Duration):

Patient complained of general weakness, pain all over the body and giddiness. Duration of complaints was in the last 1 year.

Associated complaints: Palpitation, pallor in face, nails and sclera of eyes, exertion on doing heavy work, reduced appetite and reduced digestive capacity.

Vyadhi Vrittantam (H/O Present Illness):

A 26-year-old lady patient presented at the OPD of Dravyaguna Department, Govt. Ayurvedic Hospital Erragadda, with general weakness, pain all over the body and giddiness for 1 year. She took some other medications but did not get relieved.

Purva Vrittantam (H/O Past Illness):

No relevant past history mentioned.

Not a known case of HTN, T2DM

Past Surgical History

No such relevant past surgical history found.

Parivarika Vrittantam (Family History):

No family members are there with the same complaints.

General Examination

Temperature - 98.5° F
Blood Pressure - 110/80 mmHg
Respiratory Rate - 20 per minute
Pulse Rate - 78 per minute
Pallor - Present
Cyanosis - Absent
Tongue - Coated
Icterus - Absent
Oedema - Absent

Systemic Examination**Respiratory System**

Bilaterally symmetrical, no deformities or scars seen. Chest expansion is normal.

No abnormal sound detected.

Cardiovascular System

S1 and s2 heard normally. No added sounds heard

Gastrointestinal System

No organomegaly detected, Umbilicus placed centrally, Shape is scaphoid, Bowel sounds are regular

Central Nervous System

Patient is well conscious Orientation is well with the time, person and place Reflexes are normal

Ashtasthana Pariksha

Naadi - Vatapittaja

Mutra - Prakruta, 4-5 times/day

Mala - Prakruta

Jihva - Ama

Shabda - Prakruta

Sparsha - Sheeta

Drik - Pandura

Akruti - Madhyama

Dashavidha Pariksha

Prakruti - Pitta Kapha

Vikruti - Pitta Pradhana Kapha

Sara - Madyama

Samhanana - Susamhata

Satmya - Amla Pradhana Sarvarasa

Satwa - Madhyama

Vyayama Shakti - Alpa

Ahara Shakti - Abhyavaharana Shakthi -

Madhyama, Jarana Shakthi - Alpa

Vayah - Youvana

Pramana - Height - 157 cm, Weight - 57 kg

Observations

Parameters	24/12/23 (before treatment)	28/2/24 (after 60 days)	27/4/24 (after treatment)
Hb	9.0 g/dL	10.2 g/dL	11 g/dL
WBC	6100 cell/cumm	7200 cells/cumm	8100 cells/cumm
RBC	5.06 million/cumm	5.4 million/cumm	5.6 million/cumm
MCV	61	61.3	62.5
MCH	18.3	18.7	19.6
MCHC	30.4	30.6	31.3
Platelet count	2.26 lakhs/cumm	2.35 lakhs/cumm	2.5 lakhs/cumm
Neutrophils	56%	58%	57%
Lymphocyte	35%	34%	35%
Eosinophils	8%	6%	6%
Monocyte	1%	1%	1%
Basophils	0	1%	1%
PCV	34	33	35

Discussion

This case study presents a perceptive search into the therapeutic potential of *Brahmi* (*Bacopa monnieri* (Linn.) Pennell.) *Panchanga Churna* in the management of *Pandu Roga*. *Charaka* in *Chikitsa Sthana* describing the *Pandu Roga Samprapti* states that when *Pitta Pradhana Vatadi Dosha* gets *Prakopa Avastha* in *Dhatus*, it causes *Dhatu Shaithilyam* and *Dhatu Gaurava*. Owing to vitiation of *Shareera* by these *Dushitha Doshas*, excessive *Kshaya* of *Bala*, *Varna*, *Sneha* and *Ojus* occurs,

Resulting in *Alparaktata*, *Alpamedhaskata*, *Nissaratha*, *Shithilendriyatha* and *Vaivarnya* etc. *Lakshana Yukta Vyadhi* called as *Pandu Roga*. Patient had been complaining of general weakness, pain all over the body and giddiness for past one year. Palpitation, Pallor in face, nails and sclera of eyes, exertion on doing heavy work, and reduced appetite and digestion were also present. After using *Brahmi Panchanga Churna*, 5g twice daily, for 120 days, the clinical outcomes recorded are notable. Hb% changed from 9g/dL to 11g/dL. Duration was taken as 120 days as average lifespan of a red blood cell in humans is around 120 days.

Rasapanchaka of Brahmi

Rasa	Tikta Kashaya Madhura
Guna	Sara, Laghu, Sita
Virya	Shita
Vipaka	Madhura
Karma	Medya, Ayushya, Rasayana, Swarya, Smritiprada

There are different opinions about *doshaghnatwa* of *Brahmi*. According to *Dhanwantari Nighantu*[4] and *API* it is *Vata Kaphahara*. *Madhava Dravyaguna* says it as *Tridosaghna*. It is rich in various micronutrients and macronutrients that contribute to its potential health benefits. Macronutrients include carbohydrate, protein containing all essential amino acids, and fats. Micronutrients in *Brahmi* includes Vit.A, Vit.C, Vit.E, Vit.K and minerals like Calcium, Iron, Magnesium, Potassium and Zinc.

Mode of Action

In Dourbalya [General weakness]: In *Pandu*, *Agni* is in *Mandavastha* that leads to formation of *Ama* and improper development of *Rasa* and *Rakta* which in turn causes *Uttarothara Dhatukshaya*. [5,6] This leads to decrease in *Ojas* and *Bala*, and thus *Dourbalya* is seen as a symptom in *Pandu Roga*. *Brahmi* possess *Tikta Kashaya Madhura Rasa*, *Laghu Guna*, *Dipana* and *Amaghna Karma*. *Tikta Rasa* is *Agnidipana*, with *Pachana* properties. *Amapachana* property facilitates proper *Rasadhatu Pushti* followed by *Uttarottara Dhatu Vrudhi*. *Dourbalya* is associated with *Vata Kopa* and *Brahmi* is also *Vatahara*. This drug possesses *Madhura Rasavipaka*. *Madhura Rasa* is *Sarvadhaturvivardhana* and *Ksheenahita* according to *Vagbhata*. It is *Balya*, *Brumhana*, *Jeevana* and *Tarpana* also, so it nourishes the body and provides strength, helping to alleviate weakness associated with anemia. *Brahmi* also contains phenols, flavonoids,

And saponins, which may be responsible for its neuroprotective effects.[7] It acts as a nerve tonic, improving nerve function and reducing stress and anxiety, which can contribute to overall strength and vitality. It is also known to have anti-inflammatory and antioxidant properties and can boost immunity.

In Arohana Aayasa [Exertion on doing heavy works]: Decrease in *Rakta Dhatu* will cause the impairment in *Samyak Raktaposhana* to *Hrudaya* and other organs, and lead to exertion on strenuous work. *Rasadi Dhatu Poshana* will help to maintain the proper blood flow in body and the symptoms like exertion will be reduced. *Brahmi* is rich in essential nutrients like vitamins (Vit.A, Vit.B2, Vit.B9, Vit.B12, Vit.C and Vit.E) and minerals (Calcium, copper, iron, magnesium, manganese, Sodium and Zinc) which can help the improvement of overall health and energy levels.[8] These are crucial for blood formation, immune function and skin health. By balancing the *Vata* and *Kapha Doshas*, *Brahmi* helps in stabilizing the body's energy and promoting overall well-being, which can be particularly beneficial for individuals experiencing exertion due to anemia.

In Hritspandanam [Palpitation]: *Rakta Dhatu Kshaya* will cause excessive burden on heart to pump more rapidly so as to encounter the oxygen demand of body organs. *Brahmi* has *Hrudya* (cardio protective) property according to various *Acharyas*. *Madhura Rasa* and *Sita Guna* are supportive of heart. The ethanolic extract of *Brahmi* possesses cardio-protective activity.[9] *Brahmi* acts as a nerve tonic, improving nerve function and reducing stress and anxiety which can help reduce palpitations. By balancing the *Vata* and *Kapha Doshas*, *Brahmi* helps in promoting overall well-being which can be particularly beneficial for individuals experiencing palpitation because of anemia.

In Aruchi [Loss of appetite]: *Brahmi* improves digestion by enhancing the secretion of digestive enzymes and promoting better gut health. It reduces inflammation which can improve overall health and increase appetite. The presence of bacosides, which are powerful anti-oxidants, helps protect cells from oxidative stress and damage, improving overall vitality and appetite. *Tikta Rasa* is indicated for *Aruchi* by *Vagbhata*. It is *Kanthavishodhana* and *Kledahara* also. *Kashaya Rasa* is *Lekhana* and *Kleda Shoshi* and helps to absorb excess moisture (*Kleda*) & toxins from body,

Promoting better digestive health. *Tikta Kashaya Rasa* stimulates appetite and digestion and helps in detoxification which can improve overall health.

In Bhrama [Giddiness]: *Brahmi* possess *Tikta Kashaya Rasa* which stimulates digestion and appetite, *Dipana Karma* and *Amahara Karma*. *Sita Virya* helps to cool the body and reduces inflammation which is effective in reducing dizziness. It improves the nerve function, reduces the stress and alleviate *Bhrama*. *Brahmi* can help the improvement of circulation thus providing adequate oxygen and nutrients to organs and this leads to reduced dizziness. *Bhrama* is a *Vata Pradhana Lakshana* and can be alleviated due to the *Vatahara* property of *Brahmi*. Anemia can cause electrolyte imbalance, particularly of potassium, calcium and magnesium levels, which may lead to *bhrama*. *Brahmi* is a good source for these micronutrients as well. Its overall calming and stress-reducing effects might indirectly help alleviate symptoms of dizziness.[10]

In Pandutwa [Pallor]: Pale skin or pallor is a main symptom in anemia. *Madhura Rasa* is good for *Varna* and *Indriya*, and *Kashaya Rasa* has *Twak Savarnakrut* property, according to *Vagbhata*. *Tikta Rasa* due to *Dipana* and *Pachana Karmas* stimulates digestion and appetite and *Madhura* helps in detoxification (*Vishahara*) which can improve overall skin health and reduce pallor. As *Madhura rasa* is *Sarvadhathuvivardhana* it will increase *Rakta Dhatu* which in turn reduce pallor. *Sita Virya* helps to cool the body and reduce inflammation, which can be beneficial for conditions like pallor.

In Hata Anala [Reduced digestive power]: In *Hata Anala* digestion is reduced or delayed. Here *Dipana* and *Pachana Karma* of *Tikta Rasa*, *kledahara* and *Lekhana Karma* of *Kashaya Rasa* is effective for reducing the symptoms. *Kashaya Rasa* will absorb excess *Kleda* and toxins from the body and provide better digestion. *Tikta Rasa* stimulates appetite and helps in detoxification, which can improve overall gut health and digestion. The anti-inflammatory, hepatoprotective and anti-oxidant property of *Brahmi* might have a positive impact on digestion. [11]

Effect on improvement of Hb%: In anemia, the Hb% will be lower than the normal range. This may be because of deficiency in micronutrients like iron, Vitamin B12, Vitamin B9 etc., which are present in *Brahmi*.

Dipana Karma of *Brahmi* will give *Jataragni Dipana* and *Amapachana* and thus help the increased absorption of nutrients from food. *Dhatwagni Dipana* leads to *Samyak Rasa* and *Rakta Dhatu Vrudhi* both qualitatively and quantitatively. *Madhura Rasa* is *Sarvadhathu Vivardhana* and has a *Jeevana* action, which may increase *Rakta Dhatu*. *Jeevana* is the function of *Rakta*. *Kashaya Tikta Rasa* generally have *Rakta Shodhaka* property which increases the quality of *Rakta Dhatu*. The presence of bacosides which are powerful anti-oxidants helps protect cells from oxidative stress and damage and improves overall vitality and support healthy blood production. Anti-inflammatory effect[12] of *Brahmi* helps to improve overall health and support hemoglobin production.

Conclusion

In Present study, *Brahmi Panchanga Churna* is taken to evaluate its clinical efficacy in the management of *Pandu Roga*. After taking medicine for 120 days, the patient got noticeable symptomatic relief and the Hb level increased from 9g/dL to 11 g/dL. The efficacy of *Brahmi Panchanga Churna* may be synergistically enhanced by recommended dietary and lifestyle modifications. This integrative approach may impart more sustainable therapeutic outcomes. However, while the results are promising, they are derived from a single case study, necessitating caution in generalizing the findings. Further research involving larger, controlled studies is essential to authorise these preliminary remarks and clarify the precise mechanisms through which *Brahmi Churna* exerts its curative effects in *Pandu Roga*. In conclusion, this case study suggests that *Brahmi* (*Bacopa monnieri* (Linn.) Pennell.) *Panchanga Churna* has the potential as a complementary therapeutic agent in the management of *Pandu Roga*.

References

1. Shastri K, Chaturvedi G, eds. Vidyotini: Hindi commentary of Charaka Samhita Chikitsa Sthana [chapter 16, verse 11]. 5th ed. Varanasi: Chaukhambha Bharati Academy; 2020. p. 441 [Crossref][PubMed][Google Scholar]
2. Turner J, Parsi M, Badireddy M. Anaemia [Internet]. 2024 Jan 3 [cited 2025 Apr 13]. . [Crossref][PubMed][Google Scholar]

3. Bhavamishra. Bhavprakash Nighantu [edited by Chunekar KC; revised by Pandey GS]. Varanasi: Chaukhambha Bharati Academy; 2015. . [\[Crossref\]](#) [\[PubMed\]](#) [\[Google Scholar\]](#)
4. Singh A. Dhanwantari Nighantu of Mahendra Bhogika. 1st ed. Delhi: Chaukhambha Orientalia; 2008. [\[Crossref\]](#) [\[PubMed\]](#) [\[Google Scholar\]](#)
5. Acharya Charaka. Charaka Samhita – Samhita of Agnivesha, elaborated by Charaka and Dridhabala with the Ayurveda Deepika commentary by Chakrapanidutta. Edited by Trikamji YT; prologued by Singh RH. Chikitsa Sthana, chapter 16, verses 7–11. [\[Crossref\]](#) [\[PubMed\]](#) [\[Google Scholar\]](#)
6. Pandey AK. Textbook of Kayachikitsa. 1st ed. New Delhi: Chaukhambha Publications; 2019. Vol. 2(2):167 [\[Crossref\]](#) [\[PubMed\]](#) [\[Google Scholar\]](#)
7. Saloni et al. A comprehensive review on Bacopa monnieri (L.) Pennell (Brahmi): Utilization as a functional food ingredient and health-promoting attributes. Ann Phytomed. 2022;11(1):142–150 [\[Crossref\]](#) [\[PubMed\]](#) [\[Google Scholar\]](#)
8. Mourya N, Saraf A. Evaluation of some minerals and trace elements in Bacopa monnieri (Wettst) Linn. J Pharmacogn Phytochem. 2024;13(3):294–297. doi:10.22271/phyto.2024.v13.i3d.14970 [\[Crossref\]](#) [\[PubMed\]](#) [\[Google Scholar\]](#)
9. Lodhi S, Ahmad F, Usmanghani K. Cardiovascular effects of Bacopa monnieri (L.) Pennell extract in rabbits. Pak J Pharm Sci. 1990 Jul 1;3(2):57–62 [\[Crossref\]](#) [\[PubMed\]](#) [\[Google Scholar\]](#)
10. Price A. Bacopa: The brain-boosting alternative treatment to psychotropic drugs [Internet]. 2023 Jun 25 [cited 2025 Apr 13]. . [\[Crossref\]](#) [\[PubMed\]](#) [\[Google Scholar\]](#)
11. Dubey P. Phytochemical activity of Bacopa monnieri (L.) Pennell – A brief review. Int J Biotechnol Microbiol. 2024;6(2):5–8 [\[Crossref\]](#) [\[PubMed\]](#) [\[Google Scholar\]](#)
12. Channa S, Dar A, Anjum S, Yaqoob M. Anti-inflammatory activity of Bacopa monniera in rodents. J Ethnopharmacol. 2006 Mar 8;104(1–2):286–9. [\[Crossref\]](#) [\[PubMed\]](#) [\[Google Scholar\]](#)

Disclaimer / Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of Journals and/or the editor(s). Journals and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.