AN AYURVEDIC MANAGEMENT OF *MEDOROGA* WITH SPECIAL REFERENCE TO ANAEMIA – A REVIEW STUDY

Prof. Dr. Sachinkumar Sahebrao Patil Ph.D. (Kayachikitsa), M.D. (Kayachikitsa), M.B.A. (H.R.), M.A. (Sanskrit), P.G.D.E.M.S., LL.B., D.Y.A. Principal, Medical Director, Professor and Head of Department, Ph.D. Guide, M.D. Guide, Department of *Kayachikitsa*, M.A.M.'s Sumatibhai Shah Ayurveda Mahavidyalaya, Hadapsar, Pune – 411028, Maharashtra, India.
Email ID- drsachinkumarpatil@yahoo.com drsachinkumarpatil@gmail.com

Abstract: *Medoroga* is an important Ayurvedic clinical entity characterized by abnormal accumulation and vitiation of *Meda Dhatu* and is commonly correlated with obesity and metabolic disorders. Anaemia, particularly iron-deficiency anaemia (IDA), is another major nutritional and public-health concern. Although obesity and anaemia appear to represent opposite nutritional disorders, contemporary evidence indicates an association between excess adiposity and disturbed iron metabolism. Chronic low-grade inflammation associated with obesity may increase hepcidin levels, thereby reduce intestinal iron absorption and promote functional iron deficiency. Ayurveda describes *Medoroga* primarily in the context of excessive *Santarpana*, impaired *Agni, Meda Dushti* and obstruction of normal *Dosha-Dhatu* pathways. This review explores the possible relationship between *Medoroga* and anaemia and discusses an Ayurvedic approach to their management.

Keywords: *Medoroga*, *Meda Dhatu,* Obesity, Anaemia, Iron deficiency anaemia, *Agni*, Hepcidin, *Ayurveda*.

INTRODUCTION:

Medoroga is described in *Ayurveda* as a disorder involving excessive accumulation and vitiation of *Meda Dhatu*. It is closely related to the clinical concept of *Sthaulya*, which is described among the *Santarpanajanya* disorders. Excessive intake of calorie-dense food, sedentary behaviour, excessive sleep and other lifestyle-related factors contribute to the development of *Meda Dushti* and abnormal body composition. Recent Ayurvedic literature continues to describe *Medoroga* as a disorder involving abnormal accumulation and distribution of *Meda Dhatu* and highlights its relationship with contemporary obesity and lifestyle disorders [1].

Obesity has become a major global health problem and is associated with metabolic, cardiovascular and inflammatory complications. Interestingly, obesity may also be associated with disturbances in iron homeostasis. Although excess nutritional status and iron deficiency may appear contradictory, studies have demonstrated that overweight and obese individuals may have an increased risk of iron deficiency. Chronic low-grade inflammation, increased hepcidin production, reduced intestinal iron absorption and sequestration of iron within storage sites have been proposed as important mechanisms. [2,3]

Anaemia is defined by a haemoglobin concentration below the appropriate threshold for age, sex and physiological status. It has multiple causes, including nutritional deficiencies, blood loss, infection, inflammation, chronic disease and inherited disorders. Iron deficiency remains one of the most important nutritional causes.[4]

The Ayurvedic concept of *Medoroga* does not directly correspond to anaemia. However, the relationship between *Agni, Ahara Rasa, Dhatu Poshan* and *Meda* metabolism provides a conceptual

framework for examining how abnormal metabolism and dietary patterns may coexist with micronutrient deficiencies. Therefore, the present review attempts to explore *Medoroga* with special reference to anaemia, particularly iron deficiency, while maintaining a distinction between the two clinical entities.

MATERIALS AND METHODS:

Classical Ayurvedic literature was reviewed for references concerning:

* *Medoroga*

* *Sthaulya*

* *Meda Dhatu*

* *Santarpanajanya Vyadhi*

* *Agni* and *Ama*

* *Nidana Parivarjana*

* *Langhana* and *Rukshana*

* *Shamana* and *Shodhana* therapy

Major classical sources included *Charaka Samhita, Sushruta Samhita, Ashtanga Hridaya* and *Madhava Nidana.* Contemporary scientific literature was searched using terms such as "obesity and iron deficiency," "obesity and anaemia," "hepcidin and obesity," "iron deficiency anaemia," "Ayurveda and *Medoroga*," and "Ayurvedic management of obesity."

Relevant review articles, clinical studies and systematic reviews were considered. Information obtained from classical and contemporary sources was critically synthesized to understand the possible relationship between *Medoroga* and anaemia.

RESULTS:

- **Ayurvedic concept of *Medoroga:***

Meda is one of the seven *Dhatus* and has important functions related to nourishment, lubrication and energy storage. Under physiological conditions, proper functioning of *Agni* and *Dhatu-poshana* maintains normal *Meda*. Excessive intake of *Madhura, Guru, Snigdha* and other *Santarpanajanya Ahara*, combined with sedentary behaviour and inadequate physical activity, promotes excessive accumulation of *Meda*.

Charaka describes *Sthaulya* among the *Santarpanajanya* disorders and emphasizes the importance of dietary and behavioural factors in its pathogenesis. The contemporary Ayurvedic literature describes *Medoroga* as abnormal accumulation and distribution of *Meda* and relates it to obesity and lifestyle-related metabolic disorder [1]

- **Nidana of *Medoroga:* Important causative factors include**

* Excessive intake of calorie-dense food

* Excessive *Madhura, Guru* and *Snigdha Ahara*

* Excessive consumption of food

* Frequent eating

* Day sleep

* Lack of physical activity

* Sedentary lifestyle

* Excessive sleep

* Psychological and behavioural factors

These factors may contribute to impaired metabolic regulation and progressive accumulation of adipose tissue.

• ***Samprapti*: The pathogenesis may be summarized as**

Santarpanajanya Nidana → *Agnimandya*/abnormal metabolism → excessive *Meda* formation → *Meda Vriddhi* and *Meda Dushti* → *Srotodushti/Avarana* → further impairment of normal metabolic functions → *Sthaulya/Medoroga.*

Ayurveda places considerable emphasis on the relationship between *Agni* and *Dhatu* metabolism. Consequently, management is directed not merely at reducing body weight but at correcting the underlying metabolic disturbance.

• **Relationship between *Medoroga* and anaemia:**

The relationship between obesity and iron deficiency has gained considerable attention in modern research. Obesity is associated with chronic low-grade inflammation, which may stimulate hepatic production of hepcidin. Hepcidin reduces iron absorption from the intestine and decreases iron release from storage cells by promoting degradation of ferroprotein. Consequently, iron may become less available for erythropoiesis despite apparently adequate or even increased body iron stores. [2,3]

A review of the relationship between obesity and iron deficiency concluded that obesity may disrupt iron homeostasis and contribute to iron-deficiency anaemia, with increased hepcidin mediated by chronic inflammation being a proposed mechanism. [2]

Evidence in women of reproductive age is more complex, with studies showing heterogeneous associations between obesity, haemoglobin, ferritin, iron deficiency and anaemia. Therefore, obesity should not automatically be assumed to cause anaemia. [5]

This distinction is clinically important because ferritin is also an acute-phase reactant and may be elevated in inflammatory states. Assessment of iron status in an individual with obesity may therefore require consideration of multiple parameters rather than haemoglobin alone.

DISCUSSION:

• **Ayurvedic interpretation**

From an Ayurvedic perspective, excessive and improper nutrition may produce abnormal metabolic processing and *Meda* accumulation. However, the presence of *Medoroga* does not necessarily indicate adequate micro nutritional status. A person may consume excessive calories while simultaneously having an inadequate intake of iron, folate, vitamin B12 or other micronutrients. Thus, *Santarpana* at the level of calories does not necessarily imply adequate Dhatu nutrition at the micronutrient level. This provides a conceptual basis for the coexistence of obesity and nutritional deficiency. The Ayurvedic principle of *Agni* correction may therefore be relevant to the management of patients with *Medoroga*.

However, this should not be interpreted as evidence that correction of *Agni* alone treats iron-deficiency anaemia.

- ***Nidana Parivarjana*: Removal of causative factors is fundamental**

Dietary excess, frequent snacking, highly processed foods, sedentary behaviour and excessive sleep should be addressed. Dietary management should aim at appropriate caloric restriction while ensuring adequate protein, iron, folate, vitamin B12 and other micronutrients. This is particularly important because dietary restriction in obese patients can unintentionally worsen micronutrient deficiency if the diet is poorly planned.

- ***Langhana* and *Rukshana*:**

Langhana is an important therapeutic principle in disorders arising from excessive nourishment. Appropriately planned *Langhana* may assist in reducing excessive *Meda* and improving metabolic health. *Rukshana* measures may be considered where *Kapha-Meda* predominance is present. However, excessive fasting or severe caloric restriction should be avoided in patients with established anaemia, as it may worsen nutritional deficiencies.

- ***Deepana* and *Pachana:***

Deepana-Pachana therapy may be considered in patients with *Agnimandya* and *Kapha-Meda* predominance. Classically used drugs such as *Trikatu, Chitraka, Musta* and related *Deepana-Pachana* drugs may be selected according to individual *Dosha* and *Agni* status. The objective is to improve digestion and metabolic processing rather than simply suppress appetite.

- **Exercise and lifestyle modification:**

Vyayama has a central role in the management of *Medoroga*. Regular physical activity promotes energy expenditure, improves insulin sensitivity and supports reduction of adiposity. A gradual and sustainable exercise program should be preferred over excessive exertion, particularly when significant anaemia is present.

- **Ayurvedic formulations:**

Classical formulations used in *Medoroga* may include preparations possessing *Lekhana*, *Medohara, Deepana* and *Pachana* properties. Selection should depend upon *Dosha, Agni, Bala*, age and associated conditions.

Formulations such as *Medohara Guggulu, Triphala Guggulu, Arogyavardhini Vati* and other classical preparations are described in Ayurvedic practice for conditions involving *Meda Dushti,* although the specific indication and formulation should be individualized.

When anaemia is confirmed, classical iron-containing preparations such as *Punarnavadi Mandura, Navayasa Lauha, Dhatri Lauha* and other *Lauha* preparations may be considered according to the clinical diagnosis. Clinical research has evaluated several Ayurvedic iron preparations. A systematic review identified 10 clinical studies of Ayurvedic preparations for iron-deficiency anaemia and reported improvements in several haematological and subjective outcomes, although the evidence was heterogeneous.[6] A randomized controlled study involving *Kasisa Bhasma* and *Dhatri Avaleha* reported significant improvements in haemoglobin and other haematological parameters in patients with iron-deficiency anaemia. [7]

More recent evidence, including a 2026 systematic review and network meta-analysis, has continued to evaluate comparative effects of Ayurvedic interventions for iron-deficiency anaemia, demonstrating growing research interest while also highlighting the need for higher-quality evidence. [8]

Importantly, these studies concern iron-deficiency anaemia, not *Medoroga* specifically. Therefore, their results should not be presented as direct evidence that *Medohara* therapy treats anaemia.

- **Integrative diagnostic approach:**

Patients presenting with *Medoroga* and symptoms suggestive of anaemia should undergo appropriate investigations. Useful investigations may include:

* Complete blood count

* Peripheral blood smear

* Serum ferritin

* Serum iron and TIBC/transferrin saturation where indicated

* Vitamin B12 and folate when clinically indicated

* CRP or other inflammatory markers when appropriate

* Evaluation for blood loss or other causes according to clinical presentation

WHO emphasizes that anaemia has multiple causes and that treatment should be directed at the underlying cause rather than assuming that all anaemia represents iron deficiency. [4]

CONCLUSION:

Medoroga is primarily an Ayurvedic disorder of *Meda Dushti* and excessive *Meda* accumulation, broadly comparable to obesity and related metabolic dysfunction. Anaemia, particularly iron-deficiency anaemia, is a separate clinical condition with multiple possible causes.

Nevertheless, contemporary evidence demonstrates a clinically relevant relationship between obesity and disturbed iron homeostasis. Chronic inflammation and increased hepcidin may reduce intestinal iron absorption and contribute to functional or absolute iron deficiency. [2,3]

Ayurvedic management of *Medoroga* emphasizes *Nidana Parivarjana, Langhana, Rukshana, Deepana-Pachana, Vyayama,* dietary regulation and individualized *Shamana/Shodhana* therapy. When anaemia coexists, management should additionally address the specific nutritional or pathological cause of anaemia.

Thus, a rational integrative approach would involve metabolic correction of *Medoroga* together with objective assessment and appropriate treatment of anaemia. Future clinical research should specifically evaluate whether Ayurvedic *Medohara* interventions, when combined with nutritional correction, improve iron status and inflammatory markers in patients with obesity-associated iron deficiency.

REFERENCES:

1. Kanojia A, Pedhekar SR, Abhinav. An analytical review of Medoroga through the lens of Ayurvedic Samhitas. J Ayurveda Integr Med Sci. 2026;11(2):325-329. (Jaims)

2. Cheng HL, Bryant C, Cook R, O'Connor H, Rooney K, Steinbeck K. The relationship between obesity and iron deficiency: a systematic review. Obes Rev. 2012;13(2):174-186. (PubMed)

3. Cepeda-Lopez AC, Aeberli I, Zimmermann MB. Does obesity increase risk for iron deficiency? A review of the literature and the potential mechanisms. Int J Vitam Nutr Res. 2015;85(3-4):165-175. (PubMed Central (PMC))

4. World Health Organization. Anaemia [Internet]. Geneva: World Health Organization; 2025 [cited 2026 Aug 19]. (World Health Organization)

5. Tang M, et al. Association between overweight/obesity and iron deficiency anaemia among women of reproductive age: a systematic review. Public Health Nutr. 2024. (PubMed Central (PMC))

6. Gopalakrishna B, et al. Ayurvedic preparations for the management of iron deficiency anemia: a systematic review. J Ayurveda Integr Med. 2018;9(1):1-8. (PubMed Central (PMC))

7. Tiwari S, et al. Effect of Ayurveda medications (Kasīsa Bhasma and Dhātrī Avaleha) on iron deficiency anaemia: a randomized controlled study. J Ayurveda Integr Med. 2017;8(1):15-19. (PubMed Central (PMC))

8. Damodaran Y, Karun KM, Felix F, Nagendraswamy C, Sadanandan DM, Barvaliya M, et al. Effect of Ayurvedic interventions on iron deficiency anemia in India: a systematic review and network meta-analysis. J Integr Complement Med. 2026;32(2):143-150. doi:10.1177/27683605251387011. (PubMed)

9. Charaka. Charaka Samhita. Sutra Sthana, Adhyaya 21. Varanasi: Chaukhambha Bharati Academy.

10. Sushruta. Sushruta Samhita. Sutra Sthana. Varanasi: Chaukhambha Surbharati Prakashan.

11. Vagbhata. Ashtanga Hridaya. Sutra Sthana and Sutra/Nidana sections related to Sthaulya and Medoroga. Varanasi: Chaukhambha Surbharati Prakashan.

12. Madhavakara. Madhava Nidana. Medoroga/Nidana section. Varanasi: Chaukhambha Orientalia.

Short Biography of Author



Prof. Dr. Sachinkumar Sahebrao Patil M.D. (Kayachikitsa) Medicine, Ph.D. (Kayachikitsa) Medicine, M.B.A. (H.R.), M.A. (Sanskrit), P.G.D.E.M.S., LL.B., D.Y.A. Principal,Medical Director, Professor and H.O.D., Ph.D. Guide, M.D. Guide, Department of Kayachikitsa (Medicine), M.A.M.'s Sumatibhai Shah Ayurved Mahavidyalaya, Malwadi, Hadapsar, Pune – 411028, Maharashtra State, India. He is working as an Ayurved Physician and Panchakarma Specialist since last 21 Years. He is a former BOARD OF STUDIES MEMBER for Paraclinical Ayurved Board of Maharashtra University of Health Sciences (M.U.H.S.), Nashik. He is a FACULTY MEMBER for Post Graduate Paraclinical Ayurved Board of M.U.H.S., Nashik.He was local management committee member (L.M.C member) for 15 years duration at MAM's Sumatibhai Shah Ayurved Mahavidyalaya, Malwadi, Hadapsar, Pune411028. He is working as a Research Faculty for Research Methodology and Medical Statistics for M.U.H.S., Nashik. He is a Ph.D. GUIDE for 08 Ph.D. Kayachikitsa (Medicine) students out of which 1 Ph.D student have been completed her Ph.D research work and Ph.D degree is awarded on 30/03/2026 and M.D. GUIDE for 34 M.D. Kayachikitsa (Medicine) students out of which 28 M.D. Kayachikitsa (Medicine) students have been already passed out. His research experience is 15 Years. His research interests in Anxiety disorder, Diabetes Mellitus, Obesity, Hyperacidity, Diarrhoea, Anaemia, Infertility, Jaundice etc.

Copyright & License:

© Authors retain the copyright of this article. This work is published under the Creative Commons Attribution 4.0 International License (CC BY 4.0), permitting unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.