



PANDU AS A SANTARPAJANYA VYADHI: A CONCEPTUAL STUDY

Dr. Gote Megha Suresh	MD Scholar, Department of Samhita Siddhant pt. Khushilal Sharma Govt. Ayurveda College & Institute, Bhopal, M.P.
Dr. Lajwanti Keswani	Professor and I/C HOD, Department of Samhita Siddhant pt. Khushilal Sharma Govt. Ayurveda College & Institute, Bhopal, M.P.
Dr. Salil Jain	Associate Professor, Department of Samhita Siddhant pt. Khushilal Sharma Govt. Ayurveda College & Institute, Bhopal, M.P.
Dr. Minaxhi Mujalde	MD Scholar, Department of Samhita Siddhant pt. Khushilal Sharma Govt. Ayurveda College & Institute, Bhopal, M.P.

ABSTRACT

Santarpanajanya Pāṇḍuroga represents a unique *Ayurvedic* perspective on anemia-like conditions arising not from deficiency but from metabolic excess. Unlike typical nutritional anemia, this condition develops due to habitual intake of heavy, oily, sweet, *Kapha*-promoting foods combined with a sedentary lifestyle. These factors weaken the digestive fire (*Mandāgni*), leading to the formation of *Ama* and obstruction (*Srotorodha*) in the *Rasavaha Srotas*. As a result, tissue nourishment becomes impaired despite adequate or excessive dietary intake, culminating in pallor, fatigue, and other signs of *Pandu*. This review analyzes the *Ayurvedic Samprapti* that classifies *Pandu* as a *Santarpanajanya Vyadhi* and correlates it with modern concepts such as Anemia of Inflammation/Chronic Disease (AI/ACD). Both systems emphasize metabolic dysfunction and internal blockage in *Ayurveda* through *Ama* and *Kapha*-induced obstruction, and modern science through cytokine-mediated hepcidin elevation that restricts iron availability. The study also highlights the therapeutic implications: management must prioritize *Langhana*, *Deepana*, and *Pachana* to clear metabolic stagnation before adopting any nutritive therapy. Understanding *Pandu* through this etiological lens emphasizes that effective correction of anemia requires channel purification and metabolic restoration rather than simple supplementation. Thus, *Santarpanajanya Pandu* exemplifies how excess and impaired metabolism can masquerade as deficiency, offering an integrative view relevant to contemporary metabolic disorders.

KEYWORDS : *Santarpanajanya Pandu, Ama, Srotorodha, Mandagni, Rasavaha Srotas* Anemia of Inflammation;

INTRODUCTION

Santarpanajanya Pāṇḍuroga is a distinct clinical concept within *Ayurveda* that describes an anemia-like condition (*Pāṇḍu*, characterized by pallor, fatigue, and dizziness)^[1] arising not from malnourishment or dietary deficiency, but, paradoxically, from chronic over-nourishment (*Santarpanajanya*). While *Pāṇḍuroga* is often compared to anemia in modern science, the

The *Santarpanajanya* variety highlights a unique pathogenesis rooted in metabolic lifestyle disorders. It may be etiologically comparable to Anemia of Inflammation/Chronic Disease (AI/ACD), as both result from systemic disorders rather than simple nutrient deficiencies. This condition is a profound example of how excess can lead to functional deficiency within the body. The core cause lies in the habitual, excessive consumption of foods that are heavy, oily, sweet, and cold (known as *Kapha*-aggravating foods), often combined with a sedentary lifestyle^[2]. This overwhelming load burdens the digestive system, leading to the weakening of the *Jatharagni* and the subsequent formation of sticky, unutilized metabolic waste known as *Ama*, alongside the vitiation of *Kapha Dosha*^[3]. This accumulation causes physical obstruction (*Sanga*) in the body's primary nutrient channels (*Rasavaha Srotas*)^[4], preventing the proper assimilation of nourishment. Thus, the tissues (*Dhatus*) are functionally starved despite the continuous, abundant intake, resulting in the symptoms of depletion and paleness characteristic of *Pandu*.

Aim

To comprehensively analyze the *Ayurvedic Samprapti* of *Pandu Vyadhi* to justify its classification as a *Santarpanajanya Vyadhi*.

Objective

This study critically analyzes the *Ayurvedic* classification of *Pandu* as a *Santarpanajanya Vyadhi* by elucidating its pathogenesis through *Ama* and *Srotorodha*.

The outcome will be the derivation of targeted *Ayurvedic* management protocols focused on metabolic correction rather than simple supplementation.

MATERIAL AND METHODS

A comprehensive review of classical *Ayurvedic* texts (*Charaka Samhita*, *Sushruta Samhita*,

Ashtanga Hridaya), previous research articles were conducted to understand the *Santarpanajanya Pandu Vyadhi*

Need of study

The proposal advocates for an integrative etiological reinterpretation of anemia (*Pandu Vyadhi*), driven by its high prevalence, particularly in children and in women, as revealed by the National Health Survey (2019-2021). This approach reclassifies *Pandu Vyadhi* as a *Santarpanajanya Vyadhi*, moving beyond simple nutritional deficiency to incorporate the effects of modern lifestyles. The pathogenesis is framed by *Ayurvedic* concepts like *Ama* (metabolic congestion) and *Srotorodha* (channel obstruction), which are scientifically analogous to chronic inflammation and metabolic dysfunction. This comprehensive, etiology-based understanding aims to develop targeted, synergistic prevention and treatment strategies leveraging both classical and modern science.

REVIEW OF LITERATURE

The information presented is derived from the interpretation of classical *Ayurvedic* texts, focusing on the principles of *Santarpan*, *Mandagni*, *Ama* formation, *Sroto Dushti* (channel obstruction), and the sequence of *Dhatu-Poshana Krama* (tissue nourishment sequence). The method involves tracing the etiological factors of *Santarpan* through the physiological disruption (*Samprapti*) to the final disease manifestation (*Vyadhi Rupa*) of *Pandu*. The analysis specifically concentrates on how *Kapha*-aggravating *Santarpan* factors initiate a metabolic block that ultimately impairs the formation of *Rakta Dhatu*.

The categorization of *Pandu Vyadhi* as a *Santarpanajanya* condition is directly linked to a specific obstructive metabolic pathology, rather than a direct state of caloric excess. The key findings illustrating this connection are:

1. *Santarpan* and *Mandagni*

Santarpan is defined as the consumption of a diet excessive in *Guru* (heavy), *Snigdha* (unctuous/oily), and *Madhura* (sweet) qualities, compounded by a sedentary lifestyle. These qualities overwhelm and severely strain the *Jatharagni* (digestive fire), resulting in *Mandagni* (weakened digestion)^[5].

2. *Ama* Formation and *Sroto Dushti*

The weakened digestive capacity leads to the incomplete

digestion of food, resulting in the formation of *Ama* (undigested, sticky, and toxic matter). This *Ama*, combined with the vitiated *Kapha Dosha* (resulting from the *Santarpana* diet), obstructs the *Srotas*, particularly the *Rasavaha Srotas*.^[6]

3. Impairment of *Rasavaha srotas*

This impairment is initiated when the morbid factors, *Ama* and aggravated *Kapha Dosha*, obstruct (*Sanga*) the *Rasavaha Srotas*. Furthermore, the ingestion of heavy, excessive, and unctuous food directly contributes to the vitiation of *Rasavaha srotas*^[7] leading to the qualitatively impaired formation of *Rasa Dhatu*. Consequently, this vitiated *Rasa* fails to adequately nourish the succeeding body tissues, manifesting clinically as *Panduta* (pallor), *Daurbalya* (weakness),^[8] and *Hridayaspandana* (palpitation)^[9]. Thus, *Pandu* reflects the *Dushti* of *Rasavaha Srotas* due to metabolic stagnation rather than actual undernourishment.

- The correlation between *Santarpanajanya Pandu* in *Ayurveda* and the modern concepts of Anemia of Inflammation (AI) or Anemia of Chronic Disease (ACD) reveals a profound convergence between ancient and contemporary pathology, particularly concerning the central role of metabolic dysfunction and obstruction.^[10]

Aspect	<i>Ayurvedic</i> Concept (<i>Santarpanajanya Pandu</i>)	Modern Concept (Anemia of Inflammation / ACD) ^[10]	Core Mechanism of Deprivation
Nidana (Causative Factor)	<i>Ati-Santarpanam</i> (excessive diet / over-nourishment) and <i>Divaswapna</i> (sedentary lifestyle, excessive sleep)	Chronic inflammatory state (e.g., obesity, metabolic syndrome, autoimmune disease, cancer)	The root trigger is a state of chronic excess/vitiation leading to systemic dysfunction
Pathogenesis	<i>Mandagni</i> (weak digestive/metabolic fire), <i>Ama Utpatti</i> (formation of metabolic toxins)	Chronic inflammation → release of pro-inflammatory cytokines (IL-6, IL-1β, TNF-α)	Both describe a systemic toxic/inflammatory state resulting from impaired processing
Obstructive Event	<i>Kapha</i> and <i>Meda Dhatu Dushti</i> → <i>Sroto-avarodha</i> in <i>Rasa</i> and <i>Rakta Vaha Srotas</i> (obstruction of micro-channels for nourishment/blood)	Cytokines stimulate liver production of hepcidin. Hepcidin binds to the iron exporter ferroportin (FPN) on macrophages and enterocytes, causing its internalization and degradation	The block: the physical 'stickiness' and obstruction of <i>Ama</i> mirrors the functional 'locking-up' of iron by hepcidin
Clinical Manifestation	Faulty <i>Dhatu Poshana</i> (impaired tissue nourishment, especially <i>Rakta Dhatu</i>) → <i>Pandu</i> (pallor, anemia)	Iron sequestration in macrophages → iron-restricted erythropoiesis → anemia	The outcome is anemia, not from a lack of iron in the body, but a failure to transport it to the site of red blood cell production

5. Therapeutic Importance

Recognizing the *Santarpanajanya* root, which often leads to the accumulation of metabolic toxins (*Ama*), is vital because it determines the entire treatment plan. It mandates the use of *Langhana* to manage the internal excess and help clear the *Ama*, a critical shift away from the *Brimhana* therapies typically used for conditions of *Kshaya*.

I. *Nidana Parivarjana*^[11]

- Dietary Restriction:** The patient must immediately stop the intake of heavy, unctuous, sweet, and *Kapha*-aggravating foods (the *Santarpanajanya* cause).
- Lifestyle Correction:** Incorporating regular and appropriate physical exercise^[12], *Vyayama* stimulates *Agni* by increasing internal heat and blood circulation, which effectively acts to "kindle" *Mandagni*. This enhanced metabolic activity helps to liquefy and clear the heavy obstructions, particularly excess *Meda*

and *Ama*, that have been suppressing *Agni*. By clearing these channels and consuming the excess material, *Vyayama* restores *Agni* to its normal, balanced state (*Samagni*), ensuring efficient digestion, assimilation, and waste removal.

- Deepana* and *Pachana*: Herbs and formulations to kindle the digestive fire (*Agni*), to digest and eliminate the accumulated *Ama*^[13]

III. Specific Therapeutic Procedures (*Shodhana* and *Shamana*)^[14]

- Langhana* Therapy:** This could involve *Ruksha* (drying) and *Ushna* (heating) therapies to combat the *Snigdha* (unctuous) and *Shita* (cold) qualities of *Kapha*.
- Vamana*:** Since excessive *Kapha* is accumulated, *Vamana* is often the most appropriate procedure to quickly eliminate the *Kapha* and *Ama* causing the obstruction, thereby clearing the path for *Rakta* formation.

DISCUSSION

The classification of *Pandu Vyadhi* as a *Santarpanajanya* condition highlights a sophisticated understanding of metabolism in *Ayurveda*. It redefines 'excess' not merely as caloric overconsumption but as an imbalance of diet and lifestyle that leads to metabolic impairment. The crucial differentiating point is that the pathology of this form of *Pandu Dushti*, even while the patient may exhibit signs of deficiency (Anemia). The *Santarpanajanya* etiology initiates the chain of events: *Santarpana* → *Mandagni* → *Ama* → *Rasavaha Sroto Dushti* → *Impaired Rasa Dhatu*. This mechanism is primarily led by aggravated *Kapha* and *Ama*, which precede the involvement of *Pitta* (the *Dosha* responsible for the pallor/coloration). This principle is vital for therapeutic strategies, as the treatment for this *Santarpanajanya Pandu* must initially focus on *Langhana* (lightening/reducing) and *Deepana-Pachana* (kindling the digestive fire and digesting *Ama*) to clear the metabolic obstruction, an approach contraindicated in purely *Apatarpanajanya* (starvation/depletion) forms of the disease. Therefore, *Pandu Vyadhi* serves as a unique example of a disease that can manifest with the same final signs (deficiency/pallor) but arise from two antithetical etiological spectrums: *Santarpana* and *Kshaya*.

CONCLUSION

The concept of *Santarpanajanya* underscores that blood deficiency often stems not from lack of nourishment but from metabolic obstruction. Excessive consumption of heavy, unctuous foods generates *Ama* a toxic metabolic residue that clogs *Rasavaha srotas* (the body's nutrient pathways). Therefore, true correction begins with purification and removal of these obstructions, not with direct nutritional replenishment. This reveals the profound *Ayurvedic* wisdom that effective restoration of blood requires cleansing the channels first, affirming the superiority of detoxification and metabolic correction over mere supplementation. Even though *Pandu* appears like a disease of *dhatu Kshaya*, its *Nidana* and *Samprapti* are rooted in over-nutrition and *Agnimandya* caused by *Santarpana*. Hence, *Acharya Charaka* categorized *Pandu* as a *Santarpanajanya Vyadhi*.

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