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Conceptual Study of *Vishamajwara* with Special Reference to Enteric Fever (Typhoid): A Review from *Rog Nidan* Perspective

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ABSTRACT

Background: *Vishamajwara*, a type of *Jwara* described in Ayurvedic classics, presents with irregular patterns of fever and systemic disturbances. Its *Santata* form, characterized by continuous fever, exhibits striking similarities with *Enteric Fever* (Typhoid), a systemic bacterial infection caused by *Salmonella typhi*. Understanding the *Rog Nidan* (etiopathogenesis) of *Vishamajwara* through Ayurvedic literature can provide a holistic and integrative perspective toward managing Typhoid. **Aim:** To conceptually study *Vishamajwara* with special reference to Enteric Fever (Typhoid) from the perspective of *Rog Nidan*. **Objectives:** To review classical Ayurvedic literature on *Vishamajwara*, especially *Santata Jwara*. To analyze the *Nidana Panchaka* of *Vishamajwara*. To correlate *Vishamajwara* with the clinical features of Enteric Fever. To understand the pathological progression (*Samprapti*) from the *Rog Nidan* standpoint. To establish a conceptual bridge between Ayurvedic and modern understanding of Typhoid fever. **Materials and Methods:** A comprehensive review of classical Ayurvedic texts including *Charaka Samhita*, *Sushruta Samhita*, *Madhava Nidana*, and *Ashtanga Hridaya* was carried out to gather references on *Vishamajwara*. Contemporary biomedical literature was reviewed to understand the clinical features and pathophysiology of Enteric Fever. Comparative analysis was done to identify overlaps and differences in etiopathogenesis. **Results:** *Santata Vishamajwara* is described as a persistent, often low-grade fever associated with *Dhatukshaya*, *Agni-mandya*, and *Srotorodha*. Its *Samprapti* aligns closely with the pathogenesis of Typhoid involving systemic infection, endotoxemia, and GI disturbances. Nidana factors like *Dushta Ahara*, *Jala*, and *Ajirna* are common in both conditions. The Ayurvedic perspective offers insights into early diagnosis, understanding chronicity, and rational *Chikitsa* planning based on *Dosha Dushya Sammurchana*. **Conclusion:** A thorough understanding of *Santata Vishamajwara* through the lens of *Rog Nidan* enables an integrative diagnostic model for managing Enteric Fever. Ayurvedic principles of diagnosis based on *Nidana Panchaka* can support early intervention and individualized treatment strategies. Further clinical correlation is needed to establish evidence-based Ayurvedic management protocols.

Keywords: *Vishamajwara*, *Santata Jwara*, *Enteric Fever*, *Typhoid*, *Rog Nidan*, *Samprapti*

INTRODUCTION

In Ayurveda, *Jwara* is regarded as the *Roga Adhipati* — the king of all diseases — due to its systemic impact on *Sharira* (body), *Manas* (mind), and *Indriyas* (senses). Among the various types of *Jwara*, *Vishamajwara* holds special importance because of its atypical fever pattern, chronicity, and involvement of multiple *Doshas*. It is extensively described in *Charaka Samhita*, *Sushruta Samhita*, and *Madhava Nidana*. The diagnostic and pathological insights provided under the umbrella of *Rog Nidan* for *Vishamajwara* are profound and reflect an advanced understanding of fever pathophysiology in ancient Indian medicine.[1]

Vishamajwara refers to fevers that do not follow a regular diurnal cycle. They are caused by *Dwandwaja* or *Sannipataja Doshas*, leading to disturbed *Agni*, *Ama* production, and *Srotorodha*. Based on periodicity, it is classified into *Triteeyaka* (tertian), *Chaturthaka* (quartan), and *Santata* (continuous) types. The *Santata* type of *Vishamajwara*, characterized by persistent fever with minimal remission, bears clinical resemblance to systemic infections in modern medicine, such as Enteric Fever (Typhoid). Its chronic nature often leads to *Dhatukshaya* and systemic *Balakshaya*, demanding a comprehensive diagnostic approach.[2]

Enteric Fever, primarily caused by *Salmonella typhi*, is a systemic infectious disease characterized by continuous fever, malaise, abdominal discomfort, hepatosplenomegaly, and lymphatic involvement. Its mode of transmission through

contaminated food and water, prolonged incubation, and slow recovery mirrors the clinical presentation of *Santata Vishamajwara*. Ayurvedic texts describe similar conditions with *Nidana* like *Dushta Jala*, *Ajirna Ahara*, and *Ama Nirmiti*, emphasizing the role of improper digestion and toxin accumulation—concepts that closely parallel the modern understanding of Typhoid pathogenesis.[3]

The branch of *Rog Nidan* in Ayurveda deals with the identification of disease through *Nidana Panchaka — Nidana* (causative factors), *Purvarupa* (premonitory signs), *Rupa* (symptoms), *Upashaya-Anupashaya* (therapeutic trial), and *Samprapti* (pathogenesis). These tools enable Ayurvedic physicians to trace the origin and progression of complex disorders like *Vishamajwara*. Especially in chronic and systemic conditions like *Santata Jwara*, where doshic involvement becomes complicated, *Rog Nidan* helps in outlining a precise clinical profile, which is essential for targeted and stage-wise management.[4]

A conceptual comparison between *Santata Vishamajwara* and Enteric Fever is essential to enhance diagnostic clarity, therapeutic choices, and to promote integrative approaches. While modern medicine provides microbial etiology and pharmacological treatments, Ayurveda offers a holistic lens to understand disease origin, individual susceptibility, and systemic imbalance. This study aims to bridge the knowledge of both systems through *Rog Nidan* methodology, which can enrich current understanding and guide the formulation of Ayurvedic treatment protocols for Enteric Fever-like conditions.[5]

In the current era of re-emerging infections and antibiotic resistance, understanding systemic fevers through Ayurvedic principles offers great promise. A conceptual study of *Vishamajwara*—particularly its *Santata* variant—can illuminate underlying principles of Ayurvedic pathology, personalized diagnosis, and natural therapeutics. By exploring classical references and comparing them with modern clinical entities like Typhoid, this study contributes to the evidence-based evolution of *Rog Nidan* and opens avenues for integrated patient care.[6]

Aim:

To conceptually study *Vishamajwara* with special reference to Enteric Fever (Typhoid) from the perspective of *Rog Nidan*.

Objectives:

1. To review classical Ayurvedic literature on *Vishamajwara*, especially *Santata Jwara*.
2. To analyze the *Nidana Panchaka* of *Vishamajwara*.
3. To correlate *Vishamajwara* with the clinical features of Enteric Fever.
4. To understand the pathological progression (*Samprapti*) from the *Rog Nidan* stand point.
5. To establish a conceptual bridge between Ayurvedic and modern understanding of Typhoid fever.

MATERIAL AND METHOD:

The present conceptual study was conducted through an extensive review of classical Ayurvedic texts including *Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*, and *Madhava Nidana*, focusing particularly on the chapters related to *Jwara*, *Vishamajwara*, and *Santata Jwara*. Relevant commentaries such as *Chakrapani Tika* and *Arundatta* were also consulted for interpretative insights. In addition, modern medical literature including standard textbooks of medicine and peer-reviewed articles related to Enteric Fever (Typhoid) was reviewed to understand its etiology, clinical presentation, and pathophysiology. A comparative analysis was then carried out to correlate the features of *Santata Vishamajwara* with Enteric Fever, emphasizing the diagnostic principles of *Rog Nidan* such as *Nidana Panchaka*, *Samprapti*, and clinical symptomatology. The findings were systematically compiled to highlight parallels and divergences between Ayurvedic and modern perspectives.

CONCEPTUAL STUDY ON *VISHAMAJWARA*

The classics described five types of *Vishama Jwara* according to the onset of fever. *Santata Jwara:* The accumulated *Dosha* (morbid) that is carried by *Rasavaha Srota* (channels carrying the nutrient fluid), permeates the whole body and thereafter gets localized, giving rise to the *Santata Jwara* (continuous fever). *Santata jwara* shows a resemblance to enteric fever.

Emaciated persons, one who recently relieved from disease indulging in unsuitable dietetics and life style etc., even the mildly vitiated *Doshas*, gain strength from the *Dushyas* (*Dhatu, Mala, Kala*) and manifest *Vishama Jwara*. Some *Acharya* say that it manifest due to invasion of *Bhutas* into the body.

The term *Vishamajwara* is derived from "*Vishama*" meaning irregular or atypical, and "*Jwara*" meaning fever. Thus, *Vishamajwara* refers to fevers that do not follow a regular diurnal pattern. It is characterized by variability in onset, intensity, periodicity, and remission of fever. Ayurvedic texts describe it as a manifestation of deep-seated *Dosha*

imbalance, especially involving *Vata*, combined with *Kapha* or *Pitta*, and often linked to *Ama* formation and *Srotorodha* (obstruction in channels).[7]

Classification:[8]

Classically, *Vishamajwara* is categorized based on the periodicity of fever episodes:

- *Triteeyaka Vishama* – Fever appearing every third day (tertian).
- *Chaturthaka Vishama* – Fever appearing every fourth day (quartan).
- *Santata Vishama* – Continuous fever with irregular patterns and incomplete remission (most closely resembling Enteric Fever).

This classification is primarily found in *Madhava Nidana* and *Charaka Samhita* under *Jwara Nidana Adhyaya*.

Nidana (Causative Factors):[9]

The causative factors (*Nidana*) of *Vishamajwara* include:

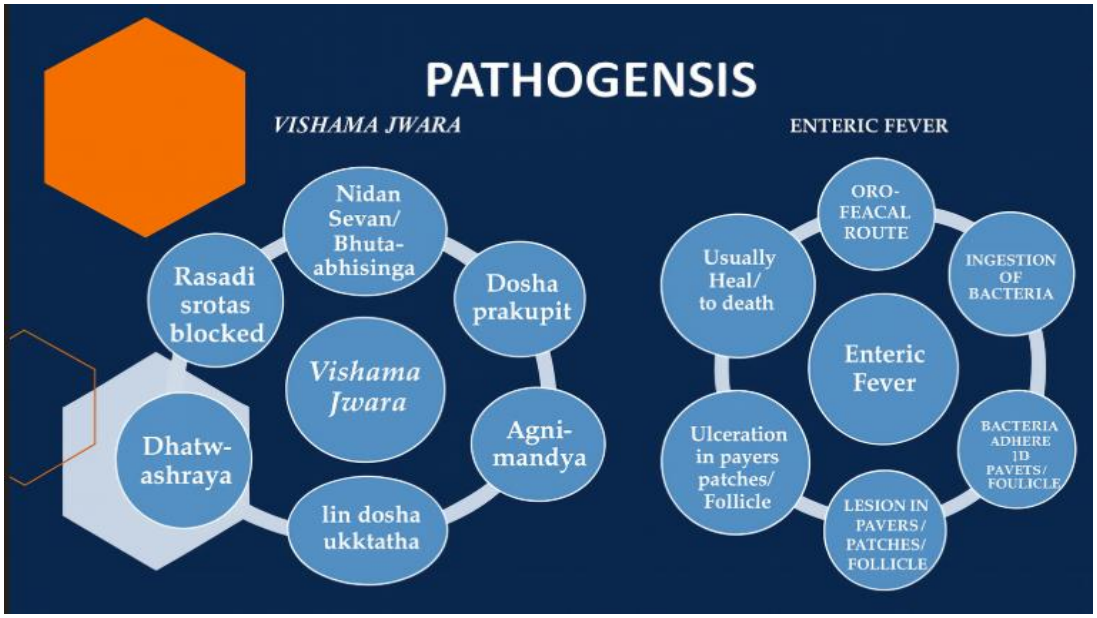
- Intake of *Guru*, *Snigdha*, *Atyambupana*, *Viruddha Ahara*, *Ajirna Bhojana* (incompatible and indigestible food).
- Exposure to *Dushta Jala* (contaminated water), unclean environment.
- Suppression of natural urges (*Vegadharana*), especially *Udgar*, *Mutra*, and *Purisha*.
- Chronic *Agantuka Hetu* (external causes like microbial invasion) as inferred in modern correlation.

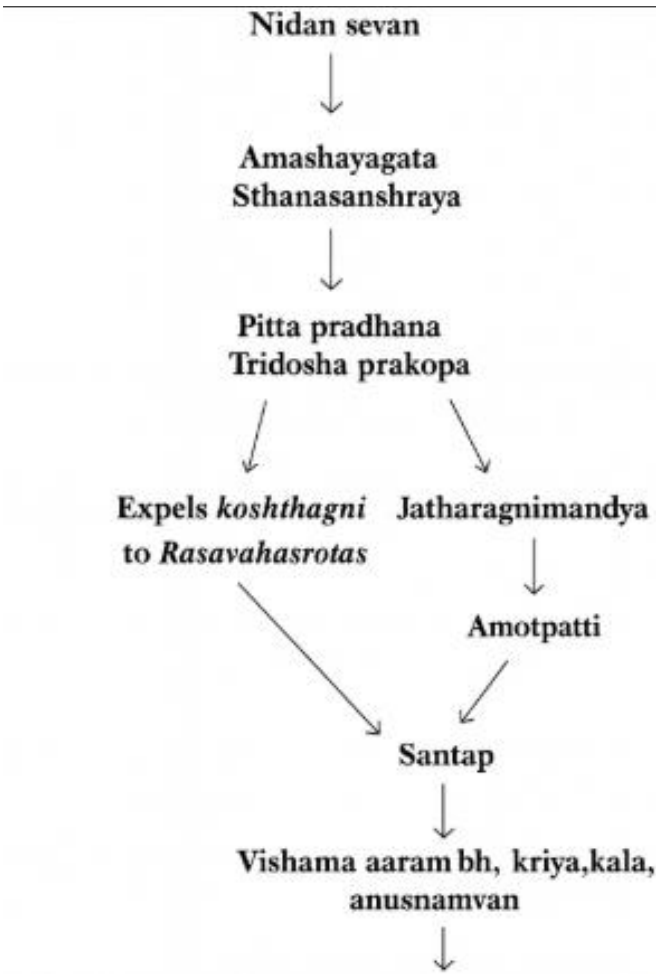
These *Nidanas* lead to *Agni Mandya*, *Ama* formation, and imbalance of *Tridosha*, which initiate *Samprapti*.

Samprapti (Pathogenesis):[10]

The *Samprapti* of *Vishamajwara* is *Sannipataja* in nature, primarily *Vatottara* or *Vatakapha*. Key features include:

- *Mandagni → Ama Nirmiti → Srotorodha → Dosha Prakopa → Rasa Dushti → Jwara*
- In *Santata Vishama*, the *Doshas* remain in *Avastha Shuddhi*, meaning deeply settled without complete remission.
- *Ama* acts as a continuous antigenic stimulus, leading to persistent fever and *Dhatukshaya*.





Visham Jwara

Lakshana (Clinical Features):[11]

Typical signs and symptoms of *Santata Vishamajwara* include:

- Continuous low to moderate fever
- Heaviness of the body and head
- Poor appetite, thirst, fatigue
- Coated tongue (*Jihva Malinata*), nausea
- Mental dullness (*Avipaka Lakshana*)
- Alternating chills and sweating
- *Bhrama*, *Tandra*, and *Jwara Stimitata* (feeling of frozen fever state)

These features closely mimic Typhoid fever, especially in its second week where intestinal and hepatic involvement manifests.

Prognosis and Chronicity:[12]

Santata Vishamajwara is considered a *Kruchchha Sadhya* (difficult to treat) condition due to its deep-seated *Dosha-Ama Sammurchana* and *Dhatukshaya*. Chronic untreated cases can lead to complications like *Udara Roga*, *Aruchi*, *Atisara*, or even *Manovikara* due to *Rasa*, *Mamsa*, and *Majja* Dhatu involvement.

Comparative Insights with Enteric Fever:

Ayurveda (*Santata Vishamajwara*)	**Modern (Enteric Fever)**
Continuous irregular fever (*Santata*)	Continuous step-ladder fever
Dushta Jala, *Ajirna* as Nidana	Feco-oral transmission via contaminated water
Mandagni, *Ama*, *Srotorodha*	Intestinal infection, endotoxemia
Dhatukshaya, *Tandra*, *Avipaka*	Fatigue, mental dullness, coated tongue
Prognosis depends on *Dosha-Ama Shuddhi*	Prognosis depends on antibiotic response and immunity

Table: *Santata Vishamajwara*

Parameter	Description
Name	*Santata Vishamajwara*
Meaning	*Santata* = Continuous; *Vishama* = Irregular/atypical; *Jwara* = Fever
Type of Jwara	*Vishama Jwara* subtype (irregular, persistent fevers)
Dosha Involved	*Vata-Kapha* predominant (*Dwandwaja*), sometimes *Sannipataja*
Nidana (Causative Factors)	• *Ajirna Ahara* (indigestion) • *Dushta Jala* (contaminated water) • *Viruddha Ahara* (incompatible diet) • *Vegadharana* (suppression of natural urges) • *Agantu Hetu* (external infection-like agents)
Samprapti (Pathogenesis)	• *Mandagni → Ama Nirmiti → Srotorodha → Dosha Dushti → Rasa Dushti → Jwara Lakshana* • Continuous fever due to deep-seated *Doshas* and *Ama*
Poorvarupa (Premonitory Signs)	• *Angamarda* (body ache) • *Aruchi* (anorexia) • *Jwara Purvarupa* such as yawning, drowsiness
Rupa (Main Symptoms)	• Continuous fever with incomplete remission • *Jihva Malinata* (coated tongue) • *Tandra* (drowsiness) • *Daurbalya* (weakness) • *Aruchi*, *Nausea*, *Bhrama*, *Hrillasa*
Upadrava (Complications)	• *Atisara*, *Udara Roga*, *Dhatukshaya*, *Manovikara*
Types (per periodicity)	• *Triteeyaka Vishama* (fever every third day) • *Chaturthaka Vishama* (every fourth day) • *Santata Vishama* (continuous fever without remission)
Sadhya-Asadhyata (Prognosis)	• *Kruchchha Sadhya* (difficult to cure), especially in chronic and *Ama-yukta* cases
Management Principles (*Chikitsa Sutra*)	• *Ama Pachana* (digestion of toxins) • *Deepana* (appetite enhancers) • *Langhana* (light fasting) • *Tridoshaghna* and *Rasayana* drugs in chronic stage
Representative Texts	• *Charaka Samhita Jwara Chikitsa* • *Madhava Nidana Jwara Nidana* • *Ashtanga Hridaya*

Enteric Fever (Typhoid)

Enteric Fever is a systemic infection caused predominantly by *Salmonella enterica* serotype *typhi* (S. typhi) and, less commonly, *S. paratyphi A, B, or C*. It is characterized by continuous fever, abdominal symptoms, and systemic toxicity. The disease is transmitted via the feco-oral route and is prevalent in areas with poor sanitation and unsafe drinking water.[13]

Etiology (Causative Organism):[14]

- Causative agent: *Salmonella typhi* (gram-negative, motile bacillus)
- Mode of transmission: Feco-oral route
- Source: Human carriers (no animal reservoir)
- Reservoir: Gallbladder of chronic carriers
- Risk factors: Contaminated food/water, poor hygiene, overcrowding

Pathophysiology:[15]

1. Ingestion of *S. typhi* →
2. Survives gastric acid barrier →
3. Invades small intestine epithelium (Peyer's patches) →
4. Enters lymphatic and bloodstream (primary bacteremia) →
5. Multiplies in reticuloendothelial system (liver, spleen, bone marrow) →
6. Secondary bacteremia → systemic dissemination →
7. Leads to high-grade continuous fever and systemic features.

- Toxin production and macrophage survival give *S. typhi* the ability to persist in the host.

- Inflammation of Peyer's patches may cause ulceration, leading to complications like intestinal perforation or hemorrhage.

Incubation Period:
Usually **7 to 14 days**, but may vary from **3 to 21 days** depending on the bacterial load and host immunity.[17]
Clinical Features (Symptoms):

Stage	Duration	Symptoms
Week 1 (Prodromal phase)	1–7 days	Gradual onset of fever, malaise, headache, dry cough, abdominal discomfort, constipation
Week 2 (Toxic phase)	8–14 days	Step-ladder pattern fever, relative bradycardia, rose spots (rash), hepatosplenomegaly, coated tongue, diarrhea or constipation, mental dullness
Week 3 (Complication phase)	15–21 days	Intestinal perforation, hemorrhage, delirium (typhoid state), hypotension, encephalopathy
Week 4 (Convalescence)	After 21 days	Slow resolution of fever, weakness, weight loss, relapse possible

Important Signs:[18]
- Fever: Persistent, rising, high-grade
- Relative bradycardia (Faget sign): Heart rate lower than expected for the degree of fever
- Rose spots: Faint salmon-colored macules on the trunk and abdomen
- Coated tongue, abdominal tenderness, splenomegaly

Diagnosis:[19]
- Clinical suspicion based on prolonged fever and gastrointestinal symptoms
- Laboratory tests:
- Blood culture (gold standard, especially in 1st week)
- Widal test: Detects agglutinating antibodies (use with caution)
- Stool and urine culture (positive in 2nd and 3rd week)
- Complete blood count: May show leukopenia or anemia
- PCR / Rapid tests: Available in some advanced settings

Complications:[20]
- Gastrointestinal: Intestinal perforation, hemorrhage
- Neurological: Delirium, encephalopathy
- Hematological: Anemia, DIC
- Others: Hepatitis, myocarditis, pneumonia, osteomyelitis (in chronic cases)

Treatment:[21]
a. Antibiotic therapy
- **First-line**:
- Ceftriaxone (3rd generation cephalosporin)
- Azithromycin
- **Alternatives**:
- Ciprofloxacin (use limited due to resistance)
- **Duration**: Usually 7–14 days depending on severity

b. Supportive care
- Oral rehydration, nutritional support
- Antipyretics (paracetamol)
- Close monitoring for complications

Prevention:
a. General measures
- Safe drinking water
- Proper sanitation and hygiene
- Handwashing practices

b. Vaccination
- Typhoid Conjugate Vaccine (TCV) – recommended in endemic areas
- Vi polysaccharide vaccine – available for adults

Prognosis:

- Favorable with early diagnosis and appropriate treatment
- Mortality: <1% with treatment, up to 10% if untreated
- Chronic carrier state: Especially in gallbladder (important in public health)

Similarities Between Vishama Jwara and Enteric Fever

Parameter	Vishama Jwara	Enteric Fever
Cause	Caused by *Bhutabhisanga* (bacterial or viral origin)	Caused by *Salmonella typhi* and *Para-typhi* (bacterial origin)
Symptoms / Lakshana	- *Srotodushti Lakshana* such as: • *Santap* (elevated temperature) • *Aruchi* (loss of appetite) • *Hridayavyatha* (palpitation) • *Trishna* (thirst) • *Angamarda* (body ache)	- High fever - Loss of appetite - Body pain - Abdominal pain - Nausea, vomiting - Feeling of heaviness
Complication	If *Santata* type is not treated within 12 days, it may lead to death	If not treated by the 2nd week, it may cause complications and death

RESULTS AND FINDINGS:

- *Santata Vishamajwara* closely resembles Enteric Fever (Typhoid) in terms of continuous fever, coated tongue, fatigue, and abdominal discomfort.
- *Nidana* like *Dushta Jala*, *Ajirna*, and *Viruddha Ahara* align with Typhoid's causes—contaminated food and water.
- *Samprapti* involving *Agni Mandya*, *Ama*, *Srotorodha*, and *Dosha Dushti* parallels the systemic infection and endotoxemia of Typhoid.
- Both conditions lead to chronicity and *Dhatukshaya*, requiring stage-wise and systemic management.
- Ayurveda considers it *Kruchchha Sadhya*, matching the complications of advanced Typhoid.
- Ayurvedic diagnostic tools like *Nidana Panchaka* can aid in early identification and holistic management of Enteric Fever.

DISCUSSION

Vishamajwara, as described in classical Ayurvedic texts, refers to fevers that occur irregularly and are difficult to manage due to their *Dosha-Ama* involvement and deep *Srotodushti*. Among its subtypes, *Santata Jwara*—characterized by persistent, unremitting fever—is the closest Ayurvedic parallel to modern Enteric Fever (Typhoid). This conceptual similarity provides a strong foundation for comparative analysis and integrative clinical reasoning.[22]

The *Nidana* (causative factors) of *Santata Vishamajwara*—such as *Ajirna Ahara*, *Dushta Jala*, and *Viruddha Ahara*—are remarkably similar to the etiological agents of Typhoid, particularly ingestion of contaminated food and water. This reflects a deep understanding of infection-related systemic fevers in Ayurvedic literature, even without the microbial lens available to modern medicine.[23] Pathogenetically, the Ayurvedic progression from *Agni Mandya* to *Ama Nirmiti*, *Srotorodha*, and *Dosha Prakopa* mirrors the modern understanding of Typhoid pathophysiology—bacterial entry, immune evasion, endotoxin release, and multi-system involvement. The resulting *Rasa Dhatu Dushti* and eventual *Dhatukshaya* in Ayurveda correlate well with the systemic inflammation, malnutrition, and fatigue seen in Typhoid patients.[24] Furthermore, Ayurvedic texts emphasize the importance of early diagnosis using *Nidana Panchaka*—particularly *Purvarupa*, *Rupa*, and *Samprapti*—which aligns with the need for prompt clinical suspicion and testing in Typhoid. The chronicity and relapsing nature of *Santata Vishamajwara* also echo the challenges faced in Typhoid management, especially in antibiotic resistance and carrier states.[25] This study highlights the value of Ayurvedic principles, especially *Rog Nidan* , in interpreting and managing conditions that present with nonspecific, systemic symptoms like persistent fever. The classical guidance on *Ama Pachana*, *Agni Deepana*, and *Rasayana* may offer supportive strategies in the recovery phase of Typhoid, enhancing immunity and preventing recurrence.[26]

Thus, a conceptual bridge between *Santata Vishamajwara* and Enteric Fever enriches both diagnostic insight and therapeutic potential, promoting integrative medicine that respects ancient wisdom while embracing modern evidence.[27]

CONCLUSION

In *Vishama Jwara*, particularly *Santata Jwara*, a striking similarity is observed with enteric fever. If left untreated until the end of the second week, the patient may develop complications that can be fatal. The fever pattern in both conditions is comparable—characterized by a continuous and step-ladder pattern. Additionally, the *Sroto Dushti Karan* involving *Bhutabhisanga* or bacterial infection is common in both. Continuous fever is also manifested in diseases such as typhoid

and certain fungal infections. Classical Ayurvedic texts like *Siddhant Nidan* and references by *Acharya Gannath Sen* identify *Santata Jwara* as *Aantarik Jwara*. Thus, it can be concluded that *Santata Jwara* under the category of *Vishama Jwara* shares clinical resemblance with enteric fever.

CONFLICT OF INTEREST -NIL

SOURCE OF SUPPORT -NONE

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