

CONCEPT OF SAAMA AND NIRAAMA: CORRELATING CRP LEVELS WITH THE  
PATHOLOGICAL UNDERSTANDING OF JWARADr. Ujwala V. Pawar<sup>1\*</sup> and Dr. Neeta Padmakar Giri<sup>2</sup><sup>1</sup>Professor and HOD, Roga Nidan Evam Vikriti Vigyan, Government Ayurvedic College, Nanded (Maharashtra) India.<sup>2</sup>Ph.D. Scholar, Roga Nidan Evam Vikriti Vigyan, Government Ayurvedic College, Nanded (Maharashtra) India.

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## ABSTRACT

The concepts of *Saam* and *Niram* are very crucial in Ayurveda for understanding the pathology of many diseases including *Jwara* (fever). *Saam* refers to a state where the *Doshas* are vitiated along with the presence of *Ama* which acts as toxins. *Niram* represents normal state or resolution of pathological progression, when the *Doshas* return to balance condition. *Saam* and *Niram* can be correlated with elevated or suppressed level of CRP (C - reactive protein) in case of *Jwara*. CRP is a biomarker for inflammation; elevated levels may correspond to the *Saam* state, reflecting significant inflammation and *Dosha* imbalance, while normalizing CRP levels align with the *Niram* state, indicating the restoration of balance in the body. Integrating these Ayurvedic concepts with modern biomarkers like CRP provides a comprehensive understanding of *Jwara's* pathology and its management. This article elaborated concept of *Saam* and *Niram*, their correlation with CRP in pathological understanding of *Jwara*.

**KEYWORDS:** Ayurveda, *Saam*, *Niram*, CRP, *Jwara*.

## INTRODUCTION

In Ayurveda, *Ama* represents undigested material which acts as toxin. It disrupts pathogenesis of many diseases including *Jwara* (fever). *Ama* deteriorates balances of the *Doshas* and creates blockages of *Srotas*. In *Jwara* presence of *Ama* indicates an inflammatory state which can be correlated with the modern biomarker CRP. As like *Ama*, level of CRP also gets elevated in response to inflammation during the progressive stage of *Jwara*. High CRP levels, like *Ama*, signify an active inflammatory process, suggesting that the body is responding to an infection or other inflammatory condition. Thus, elevated CRP in *Jwara* can be seen as a modern reflection of the presence of *Ama*.<sup>[1-5]</sup>

Concept of *Sama* and *Niraama*

Ayurveda terms "*Sama*" and "*Niraama*" indicate conditions with *Ama* & without *Ama* respectively. These terms are crucial for understanding state of *Doshas* especially in diseased condition. *Ama* is created when *Agni* get weakened, leading to the incomplete digestion which results partially digested substance, that acts as toxin (*Ama*). It can obstructs flow of *Doshas* and involve in various pathological conditions. In the state of pathological progression of disease, *Ama* combines with *Dosha*; results in a *Sama Dosha* (*Sama Vata*, *Sama Pitta* and *Sama Kapha*). In this condition vitiated *Dosha* increases severity of symptoms of diseases. State of *Sama Doshas* characterized by feeling of heaviness,

dullness, sluggishness and discomfort, etc. *Sama Doshas* require treatment that helps to remove *Ama* first, through digestive stimulants *Panchakarma*.<sup>[6-8]</sup>

The term "*Niraama*" refers to the state of *Doshas* remains free from *Ama*. In this condition *Doshas* may be in vitiated state, but they are not affected by noxious effects of *Ama*, thus severity of symptoms of disease not so worsen as like to *Sama Dosha* state. *Niraama* state occur when *Ama* get eliminates or its formation suppressed due to the natural healing process or as resultant of therapeutic interventions. This is considered as less toxic state, in which patient feel much better as compared to earlier state of *Sama Dosha*. When the *Dosha* remain free from *Ama*, then they referred as *Niraama Dosha* (*Niraama Vata*, *Niraama Pitta* and *Niraama Kapha*). Absence of *Ama* witnesses milder symptoms of disease and treatment plan can be executed effectively. Condition of *Niraama Doshas* is characterized by lightness, recovery, gradual improvement from disease and fewer chronic manifestations, etc. Diseases in which *Niraama Doshas* are involved can be treated easily using standard therapeutic interventions.<sup>[6-8]</sup>

*Sama* and *Niraama* in the Context of Fever

In case of *Jwara*, *Rasa dhatu* not formed properly, instead, that partially digested food undergoes fermentation, leading to the formation of *Ama*. Thus *Ama*

is formed due to the diminished state of *Agni* as improperly digested *Rasa*. The progressive stage of *Jwara* witnesses *Sama* state in which *Dosha* are associated with *Ama* leading to the severe symptoms as mentioned in **Table 1**. As the therapeutic procedure

meets intended goal or natural healing get started the *Niraama* state arises in which *Ama* no longer associated with *Dosha*, resulting mild symptoms as mentioned in **Table 1**.<sup>[8-10]</sup>

**Table 1: Symptoms associated with *Sama* and *Niraama* state.**

Condition	Symptom	Description
<b><i>Sama</i></b>	<i>Aagnisada</i>	Reduced digestive fire, leading to poor metabolism.
	<i>Tandra</i>	Feeling of drowsiness and lethargy.
	<i>Gauravta</i>	Heaviness and discomfort in the body.
	<i>Antrakujana</i>	Gurgling or sounds in the stomach.
	<i>Vedana</i>	Pain in various parts of the body.
	<i>Shopha</i>	Inflammation and swelling, burning sensation.
	<i>Tapa</i>	High temperature in body and joint pain.
<b><i>Niraama</i></b>	<i>Vishad</i>	Clarity in symptoms, feeling lighter.
	<i>Rukshata</i>	Dryness of the skin.
	<i>Nirvibandha</i>	Relief from constipation.
	<i>Alpa Vedana</i>	Pain is present but milder in intensity.

#### **Role of C-reactive protein (CRP) in *Jwara* and Correlation with *Sama/Niraama***

CRP is a protein produced as a response to inflammation. In the context of *Jwara*, elevated levels of CRP indicate cascade of inflammatory sequence characterized by high temperature, swelling and pain. The measurement of CRP levels is used to assess the severity of inflammation. High CRP levels suggest significant inflammation, which may be correlated with the presence of *Ama*, as *Ama* also associated with inflammation and toxicity in Ayurveda. The *Sama Jwara* produces symptoms as observed with high CRP levels. The impaired digestive fire is common in both conditions when *Ama* and CRP level rises. This impairment leads accumulation of toxins, which combine with the *Doshas* to create severe symptoms of fever. Similarly as CRP level increases it causes similar symptoms as mentioned in Table 1, like lethargy, heaviness, loss of appetite, indigestion and body aches, etc. High CRP becomes troublesome for physician similarly presence of *Ama* makes disease/fever difficult to treat. In *Sama Jwara* CRP levels are likely to be elevated due to the inflammatory nature of *Ama*; this indicates more intense inflammatory response.<sup>[1-3, 5, 11]</sup>

*Niraama Jwara* is a condition without the presence of *Ama*, this state involves mild vitiation of *Doshas*, but *Agni* has improved, which results elimination of *Ama*. *Niraama Jwara* is marked by symptoms, such as more appetite and feeling of lightness in body, etc. In *Niraama Jwara* CRP levels remain elevated little bit, not much higher side as compared to *Sama Jwara*. This state reflects less intense inflammatory process and better recovery from the diseased symptoms.

In modern science CRP serves as a marker to assess the inflammatory response in case of fever. The high and low level of CRP can be complemented with the Ayurvedic understanding of *Ama* and *Nirama* respectively. By integrating CRP levels with the *Sama/Niraama* assessment, the physician can plan a comprehensive treatment for effective management of various stages of fever.

CRP elevated levels indicating the presence of inflammation. This rise in CRP is often due to inflammatory cytokines, particularly IL-6, and is associated with tissue fever and chronic inflammatory conditions. In Ayurveda, *Ama* is considered a toxic byproduct resulting from weakened *Agni*, reflecting disrupted digestion and metabolism that leads to systemic inflammation. While CRP serves as a biomarker for detecting and monitoring inflammation in clinical practice, *Ama* accumulates in the body from incomplete digestion, obstructing *Doshas* and contributing to a toxic state that causes inflammation and fever. The production of CRP as anticipatory response of inflammation during the fever is depicted in **Figure 1**, assessment of CRP level provides idea about the severity of fever, as like accumulation of *Ama* suggest about the progressive stage of *Jwara*.<sup>[5-7, 11]</sup>

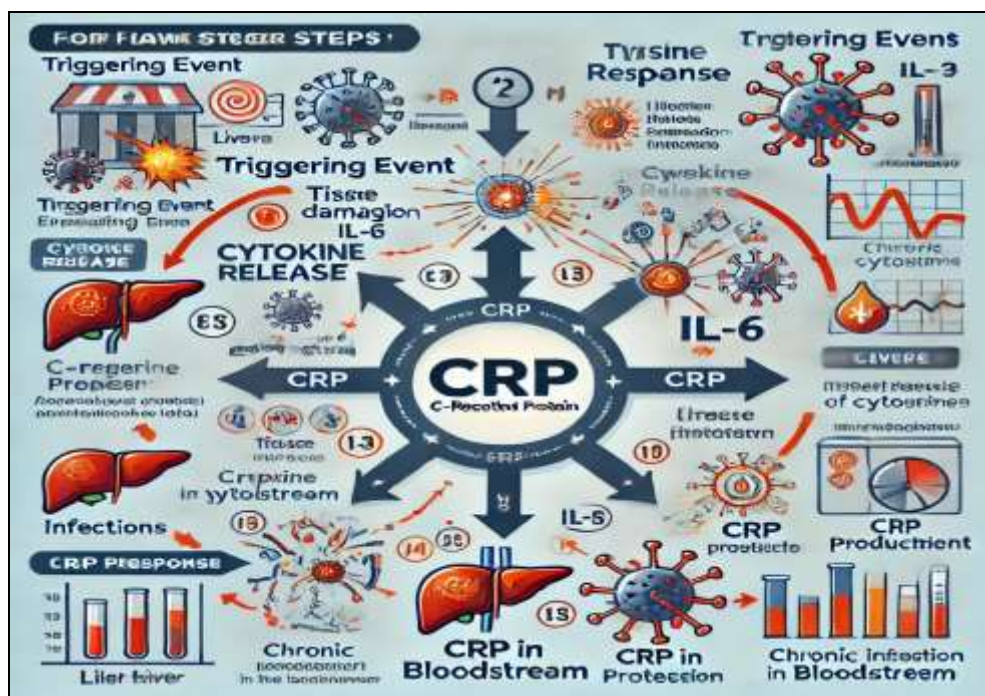


Figure 1: Production of CRP as anticipatory response of inflammation during the fever.

The assessment of CRP is crucial for evaluating the effectiveness of treatments aimed at reducing inflammation, while in Ayurveda; the treatment of *Ama* involves detoxification therapies such as *Panchakarma* and the improvement of *Agni*. Monitoring CRP can thus provide valuable insights into inflammation and can complement Ayurvedic strategies focused on understanding the underlying pathology and guiding treatment.

## CONCLUSION

The integration of Ayurvedic concepts with modern science provides more comprehensive understanding of inflammatory conditions such as *Jwara*. The concepts of *Sama* and *Niraama* illustrate the presence or absence of *Aama* and its association with *Doshas*, which influences severity of disease. *Sama* represents *Doshic* imbalance complicated by *Ama*, which produces severe symptoms and treatment become challenging. In contrast, *Niraama* reflects an absence of *Ama*, this condition involve improvement in health and stage of recovery. Modern science suggested role of CRP during inflammation which can be aligns with these Ayurvedic principles during the condition of fever. Elevated CRP levels can be correlated with the *Sama* state of increased inflammation and *Doshic* imbalance, while normalized CRP levels correspond to the *Niraama* state, indicating reduced inflammation and restored balance. By understanding the correlation between CRP and *Ama*, physician can integrate Ayurvedic concepts with modern diagnostic tools to create a comprehensive treatment plan that addresses both inflammation and underlying metabolic disturbances.

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