

1 Vedanadhyaya of Kashyapa Samhita: A Ayurvedic Perspective on 2 Pain and Its Correlation with Contemporary Science .

3 Abstract

4 Pain, or *Vedana*, is a fundamental clinical entity described extensively in Ayurveda,
5 reflecting both physiological and psychological disturbances. Among classical
6 Ayurvedic texts, *Kashyapa Samhita* presents a unique perspective on pain in its
7 *Vedanadhyaya*, emphasizing etiological factors, doshic involvement, and systemic
8 manifestations. This review aims to critically analyze the concept of Vedana as
9 described by Acharya Kashyapa and correlate it with contemporary understanding of
10 pain mechanisms in modern biomedical science. Classical descriptions of Vedana,
11 including its causative factors (*Nidana*), classification, and role of *Vata Dosha*, are
12 explored alongside modern concepts such as nociception, neuropathic pain, and
13 central sensitization. The integrative approach highlights similarities between
14 Ayurvedic concepts and neurophysiological pathways, including the role of
15 neurotransmitters and psychological modulation of pain. Additionally, clinical
16 implications of such correlations are discussed in the context of holistic pain
17 management. The study underscores the relevance of Ayurvedic principles in
18 understanding multidimensional aspects of pain and advocates for integrative
19 approaches in clinical practice.

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21 Keywords

22 Vedana, Kashyapa Samhita, Pain, Vata Dosha, Nociception, Ayurveda,
23 Neurophysiology.

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25 Introduction

26 Pain is one of the most common symptoms prompting individuals to seek medical
27 attention and represents a complex interplay of sensory, emotional, and cognitive
28 factors. In modern medicine, pain is defined as an unpleasant sensory and emotional
29 experience associated with actual or potential tissue damage¹. Ayurveda, however,
30 conceptualizes pain (*Vedana*) as a manifestation of imbalance in bodily humors
31 (*Doshas*), particularly *Vata*, along with involvement of mind (*Manas*) and tissues
32 (*Dhatus*)².

33 *Kashyapa Samhita*, a classical Ayurvedic text with a distinct focus on pediatrics and
34 general medicine, provides a nuanced description of Vedana in its *Vedanadhyaya*.
35 Acharya Kashyapa elaborates upon the causation, types, and manifestations of pain,
36 emphasizing its systemic and holistic nature³. Unlike reductionist approaches,
37 Ayurveda integrates physical, psychological, and environmental factors into the
38 understanding of pain.

39 With advances in neuroscience, modern pain science has evolved to include
40 mechanisms such as nociception, central sensitization, and biopsychosocial models of
41 pain⁴. Therefore, correlating Ayurvedic insights with contemporary science can
42 provide a broader framework for understanding and managing pain.

43 **Concept of Vedana in Vedanadhyaya**

44 Acharya Kashyapa describes Vedana as a subjective experience arising from
45 derangement of Doshas, particularly *Vata*, which governs movement and neural
46 activity⁵. Vedana is not merely a symptom but an indicator of underlying pathological
47 processes.

48 **Nidana (Etiological Factors)**

49 The causative factors of Vedana include:

- 50 • Improper diet (*Ahara*)
- 51 • Irregular lifestyle (*Vihara*)
- 52 • Trauma (*Abhighata*)
- 53 • Psychological stress (*Manasika Hetu*)⁶

54 These factors disturb Doshas, leading to altered physiological functioning and
55 perception of pain.

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60 **Types of Vedana (Ayurvedic Classification)**

Type of Vedana	Description (Ayurveda)	Modern Correlation
Vataja Vedana	Sharp, pricking pain	Neuropathic pain
Pittaja Vedana	Burning sensation	Inflammatory pain
Kaphaja Vedana	Dull, heavy pain	Chronic somatic pain

Type of Vedana	Description (Ayurveda)	Modern Correlation
Manasika Vedana	Psychogenic pain	Psychological pain

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62 **Ayurvedic Pathophysiology (Samprapti) of Vedana**

63 Vedana develops due to vitiation of Doshas, primarily *Vata*, which disrupts normal
64 sensory perception.

65 **Flowchart: Samprapti of Vedana**

66 Nidana (Ahara, Vihara, Trauma, Stress)

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68 Dosha Imbalance (Predominantly Vata)

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70 Srotodushti (Channel Dysfunction)

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72 Dhatu Involvement

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74 Altered Sensory Perception

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76 Vedana (Pain)

77 *Vata's* properties (*Ruksha, Sheeta, Chala*) facilitate abnormal neural transmission,
78 leading to pain perception⁷.

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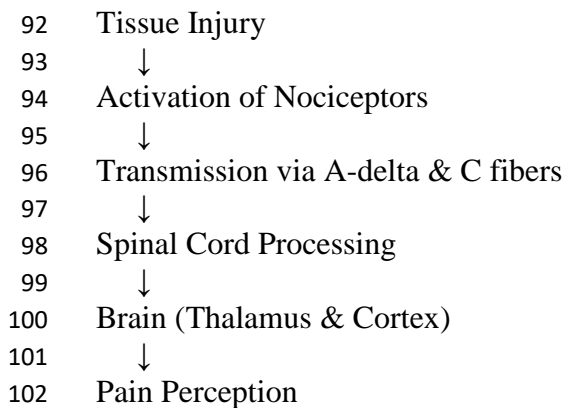
83 **Modern Perspective of Pain**

84 Modern pain science defines pain through neurophysiological processes involving
85 nociceptors, spinal pathways, and cortical processing⁸.

86 **Types of Pain**

- 87 • **Nociceptive Pain** – due to tissue injury
- 88 • **Neuropathic Pain** – due to nerve damage
- 89 • **Central Pain** – due to CNS dysfunction
- 90 • **Psychogenic Pain** – influenced by emotional factors⁹

91 **Flowchart: Modern Pain Pathway**



104 **Effect of Pain on Proprioception**

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106 Proprioception refers to the body's ability to sense position, movement, and
107 equilibrium. It is mediated by specialized receptors such as muscle spindles, Golgi
108 tendon organs, and joint receptors. Although traditionally considered separate from
109 nociception, modern neuroscience recognizes a close interaction between
110 proprioceptive and pain pathways. Pain can alter proprioceptive accuracy by affecting
111 sensorimotor integration. For example, chronic pain conditions are associated with
112 impaired joint position sense and altered cortical representation. This suggests that
113 pain is not merely a sensory phenomenon but also influences motor control and body
114 awareness.

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116 Neurophysiologically, proprioceptive signals are transmitted via A-beta fibers to the
117 dorsal column-medial lemniscus pathway, whereas pain signals are transmitted via A-
118 delta and C fibers through the spinothalamic tract. However, these pathways interact
119 at multiple levels, including the spinal cord and cortex. From an integrative
120 perspective, Vata Dosha governs both movement and sensory perception, which may
121 correlate with both proprioceptive and nociceptive functions. Disturbance of Vata can
122 therefore lead to both pain and altered body awareness.

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125 **Correlation between Vedana and Modern Pain Science**

126 The Ayurvedic concept of Vedana aligns significantly with modern pain mechanisms.

127 **1. Vata and Neural Transmission**

128 Vata Dosha is responsible for all movement, including nerve impulses. This correlates
129 with neuronal conduction and synaptic transmission¹⁰.

130 **2. Types of Vedana vs Pain Classification**

Ayurveda	Modern Science
Vataja	Neuropathic
Pittaja	Inflammatory
Kaphaja	Chronic dull pain
Manasika	Psychogenic

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132 **3. Role of Mind (Manas)**

133 Ayurveda emphasizes the role of mind in pain perception, similar to the
134 biopsychosocial model in modern medicine¹¹.

135 **4. Central Sensitization and Vata Prakopa**

136 Chronic Vata aggravation may be correlated with central sensitization, where pain
137 perception is amplified¹².

138 **Clinical Implications**

139 Understanding Vedana through both perspectives offers several clinical advantages:

- 140 • Holistic pain assessment
- 141 • Personalized treatment based on Dosha
- 142 • Integration of herbal, dietary, and lifestyle interventions
- 143 • Better management of chronic and psychosomatic pain

144 Ayurvedic therapies like *Snehana*, *Swedana*, and *Basti* are particularly effective in
145 Vata-related pain disorders¹³.

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147 **Discussion**

148 The analysis of Vedanadhyaya reveals that Ayurvedic scholars had a profound
149 understanding of pain as a multidimensional phenomenon. The emphasis on Dosha
150 imbalance, particularly Vata, parallels modern insights into neural mechanisms.
151 Furthermore, Ayurveda's inclusion of psychological factors aligns with contemporary
152 biopsychosocial models.

153 The classification of Vedana into different types based on Dosha involvement
154 demonstrates an early attempt to categorize pain syndromes, comparable to modern

155 classifications. The concept of Srotodushti can be interpreted as dysfunction in
156 physiological pathways, including neural and vascular systems.

157 However, differences exist in terminologies and explanatory models. While modern
158 science relies on molecular and neurochemical explanations, Ayurveda adopts a
159 functional and systemic approach. Integrating both can enhance diagnostic precision
160 and therapeutic outcomes.

161 **Conclusion**

162 The Vedanadhyaya of Kashyapa Samhita offers a comprehensive understanding of
163 pain that is remarkably consistent with modern scientific perspectives. The correlation
164 between Ayurvedic concepts such as Vata Dosha and contemporary neurophysiology
165 highlights the timeless relevance of classical knowledge. Integrating these paradigms
166 can pave the way for more holistic and effective pain management strategies.

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