Review Article

# A Systematic Review of Sandhaniya Mahakashaya: Its Role in Fracture and Wound Healing

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**Abstract**

**Background:** Sandhaniya Mahakashaya, as described in Ayurveda, consists of 10 medicinal herbs with properties that promote tissue regeneration, particularly in bone fractures and wound healing. This systematic review aims to evaluate the scientific evidence supporting its efficacy.

**Methods:** A systematic literature search was conducted using Ayurvedic texts, modern research articles, and clinical studies. The PRISMA methodology was followed, including eligibility criteria, study selection, data extraction, and analysis.

**Results:** Various studies indicate the efficacy of Sandhaniya Mahakashaya in hemostasis, tissue regeneration, and anti-inflammatory effects. Some of the commonly used herbs include Madhuka, Madhuparni, Prishniparni, Ambashthaki, Samanga, Mocharasa, Dhataki, Lodhra, Priyangu, and Kataphala.

**Conclusion:** Sandhaniya Mahakashaya exhibits significant wound healing and bone repair properties, making it a viable alternative therapy. However, more rigorous clinical trials are required to validate these findings.

**Key words :** sandhaniya mahakashaya, shonit vikara, atisara

## Introduction

Sandhaniya Mahakashaya is a classical Ayurvedic formulation recognized for its role in wound healing and tissue regeneration.[(1)] The purpose of this review is to systematically assess its therapeutic potential and compare it with existing modern treatments.

## Methods

### Search Strategy

A comprehensive search was conducted using Ayurvedic classical texts (Charaka Samhita, Sushruta Samhita, Bhavaprakasha) and modern medical databases (PubMed, Google Scholar) for relevant studies published in the last two decades.

### Eligibility Criteria

- Inclusion: Studies focusing on Sandhaniya Mahakashaya, its pharmacological effects, and clinical applications.
- Exclusion: Non-relevant studies, animal studies without clinical correlations, and reviews without experimental evidence.

### Data Extraction

Key data such as study type, sample size, intervention, outcomes, and limitations were extracted.

## Results

### Study Selection

A total of 50 studies were identified; after screening and eligibility assessment, 25 studies were included in the final analysis.

### Study Characteristics

The pharmacological effects of Sandhaniya Mahakashaya are largely attributed to its Kashaya and Tikta Rasa properties, which aid in hemostasis and tissue healing.[(2-3)] The clinical applications of this formulation are diverse, including its effectiveness in treating fractures, ulcer healing, and post-operative wound care. Mechanistically, herbs such as Lodhra and Priyangu demonstrated vasoconstriction effects, while Prishniparni accelerated granulation tissue formation, thereby promoting faster recovery.[(4-5)]

**Detailed ObservationsHerb NameProperties & Uses**MadhukaShonitasthapan, raktashodhaka, stambhak, raktavardhak, useful in ulcer healing.[(6)] Madhuparni Raktashodhak, raktavardhaka, used in prameha, raktarsha, atisara. Prishniparni Shothahara, anulomaka, grahi, effective in raktatisara, grahani conditions. Ambashthaki Atisaranashini, bahya vranaropana, kusthaghna, dipana, pachana.[(7,8)] SamangaStambhana, raktashodhaka, shothahara, effective in asthibhagna, raktatisara. MocharasaStambhana, vranaropana, used in raktatisara, atisara, pravahika, grahani.DhatakiDahaprashamana, vranaropana, effective in pakvatisara, pravahika. LodhraKushthaghna, shothaghna, raktastambhaka, vranaropana, reduces edema. Priyangu Rakta prasadana, daurgandhyahara, vranaropana, useful in raktapitta, skin disorders. KataphalaKatu, tikta, kashaya rasa, widely used in blood disorders.

## Discussion

The systematic review highlights the effectiveness of Sandhaniya Mahakashaya in treating fractures and

wounds.[9,10] The key mechanisms involve anti-inflammatory, hemostatic, and regenerative properties. The presence of Kashaya and Tikta Rasa compounds in these herbs contributes to their ability to arrest bleeding, enhance granulation tissue formation, and promote collagen synthesis, which is essential for bone and tissue repair. Additionally, several studies indicate that Sandhaniya Mahakashaya has antimicrobial properties, reducing the risk of secondary infections in wounds and fractures.[11,12]

Traditional Ayurvedic texts suggest that the combination of these herbs enhances the overall healing process by balancing the doshas, particularly Vata and Pitta, which are commonly aggravated in trauma and wound conditions. Clinical observations also reveal that using these herbs can accelerate post-surgical recovery and improve outcomes in chronic wound cases.[13]

Despite these promising findings, limitations exist in the current body of research. The majority of studies available are observational, and there is a lack of randomized controlled trials that could provide more definitive evidence. Variability in dosages, methods of preparation, and patient conditions also pose challenges in standardizing treatment protocols. Future research should aim to establish precise formulations, conduct multi-center clinical trials, and explore the pharmacodynamics of these herbs in greater detail. With these advancements, Sandhaniya Mahakashaya has the potential to become a widely accepted complementary therapy in modern medicine. [14]

**Conclusion**

Sandhaniya Mahakashaya is a promising Ayurvedic formulation for tissue healing. Its traditional use aligns with modern pharmacological findings, warranting further clinical validation.

**Source of Support:** Nil

**Conflict of Interest:** Nil



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