

A COMPARATIVE STUDY: VRANA SHOPHA (CELLULITIS) IN AYURVEDA AND MODERN MEDICINE PERSPECTIVES

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ABSTRACT

Cellulitis, known as Vrana Shopha in Ayurveda, is a common skin infection characterized by inflammation of the deeper layers of the skin and subcutaneous tissues. This article aims to provide a comprehensive understanding of Vrana Shopha by comparing the Ayurvedic perspective with modern medical insights. In Ayurveda, Vrana Shopha is classified under the category of Vrana (Wounds) and is considered a result of vitiated Doshas (Bio energies), primarily Vata and Pitta. According to Ayurvedic principles, the imbalance of these Doshas leads to impaired tissue metabolism and compromised immunity, predisposing individuals to Vrana Shopha. Ayurvedic texts describe various causative factors, clinical features, and management strategies for Vrana Shopha, emphasizing the importance of restoring Dosha

balance and promoting tissue healing. In modern medicine, cellulitis is recognized as a bacterial infection commonly caused by Staphylococcus and Streptococcus species. Risk factors include compromised immunity, skin injuries, and underlying medical conditions. Clinical presentation typically includes erythema, swelling, warmth, and pain at the affected site. Diagnosis is primarily clinical, often supported by imaging studies or cultures. Treatment involves antibiotic therapy targeted at the causative organisms, along with supportive measures such as elevation and wound care. By juxtaposing Ayurvedic principles with modern medical understanding, this article highlights the similarities and differences in conceptualizing and managing Vrana Shopha (Cellulitis). Integrating insights from both systems could offer a holistic approach to managing this common skin condition, addressing not only the symptoms but also the underlying imbalances for comprehensive healing and prevention of recurrence.

KEYWORDS: Vrana shopa, Cellulitis, Wound Healing, Inflammation.

INTRODUCTION

Vrana Shotha, a concept rooted in Ayurveda, and cellulitis, a prevalent condition in modern medicine, both pertain to inflammatory processes involving the skin and underlying tissues. While cellulitis is extensively studied and treated within the framework of modern medicine, Vrana Shotha represents a parallel understanding of wound healing in Ayurveda. Despite their distinct origins and approaches, both systems aim to address similar clinical manifestations and complications associated with tissue inflammation and infection. The terms "shopa," "shotha," and "shvayathu" refer to an abnormal elevation in one or more body parts. Since the Samhita era, Shotha has been well recognised as a clinical entity. Most Ayurvedic classics provide a detailed explanation of shotha along with information on classification, symptomatology, complications, and therapy. The Sushruta Samhita explains the surgical features of Shopa and Vrana. Shopa was defined by the surgeon Sushruta as localised swelling involving the skin and the flesh beneath it, which could be even or uneven. Once more he distinguished the Vrana from other clinical entities such as abscesses, glandular enlargements, etc. Conditions listed above that are also linked to swellings.^[1] That which existing prior to Vrana is called Shopa. Charaka states that when vitiated Vata comes into contact with vitiated Rakta, Pitta, and Kapha, it pushes them to the periphery and obstructs the srotas, causing Shotha to grow around the skin and not only in one area of the body.^[2]

Cellulitis is a spreading inflammation of the skin and subcutaneous tissue that is usually caused by a bacterial infection.^[3] A bacterial infection is typically the cause of cellulitis, a type of subcutaneous tissue inflammation that spreads. Clostridium species, Staphylococci, and streptococci are the most common causes of cellulitis.^[4] Inflammatory signs like pain, redness, soreness, and swelling are typical of cellulitis. Therefore, the goal of treating cellulitis should be to alleviate symptoms as soon as possible while preventing more serious side effects such meningitis, endocarditis, sepsis, lymphangitis, and osteomyelitis. Depending on the symptoms, analgesics, antipyretics, anti-inflammatory drugs, and antibiotics are often used to treat cellulitis. Cellulitis is associated with *Vranshopa* in Ayurveda. *Vranshopa* is a prodromal symptom or stage of *Vrana*.^[5]

Classification and Clinical presentation of Shopa

Acharya Sushruta classified Shopa on the basis of clinical observation into six types; Vatika, Pittaja, Kaphaja, Shonitaja, Sannipataja, Agantuja.^[6]

1) Vataja shopha

It has following features.

Varna - Krishna, Aruna.

Sparsha - Parusha, Mrudu.

Toda and Anavasthita.

2) Pittaja shopha

It has following features

Varna - Piita, Aruna.

Sparsha - Mrudu.

Osha and Sheeghraanusari.

Kaphaja Shopaha

It has following features

Varna - Pandu.

Sparsha - Kathina, Sheeta, Snigdha.

Kandu, Vedana and Mandaanusari

Raktaja Shopha

“Pittavatshonitajoatikrushna”

Similar features as that of Pitta but has

Varna – Atikrushna

Agantuja shopha

Has combined features of all above and has

Lohitaavabhasa.

Aetiopathogenesis of shopha

It is commonly recognised that diseases develop as a result of Dosha imbalances. The pathophysiology of shopha has a strong similarity to inflammation. It is described as the tissue's local reaction to any type of damage. Sushruta stated that Shopha happens in six distinct stages known as Shatkriyakala, in a sequential manner.^[7]

Accordingly, they are as follows

1. Chaya: Build-up of Doshas that are physiologically active.
2. Prakopa: Stimulating previously accrued and unbalanced Dosha.

3. Prasara: Dosha departs from their initial location, bursting with excitement.
4. Sthana: The localization of an unbalanced wandering Dosha at a certain location.
5. Vyakta: Dosha manifestation as a sickness with outward symptoms.
6. Bheda: Pathological lesions definitively terminate.

Avasthas or stages of vrana shopha

1. Aamaavstha
2. Pachyamaanaavastha
3. Pakwaavastha

Amaavastha - (Early stage of inflammation)

In this condition Kaphadosha may be predominant due to which swelling is produced, hence it has symptoms as follows^[8]

Sparsha - Manda, Ushma.

Twaksavarnata.

Shitashopha, Alpashopha.

Sthira

Manda Vedana

Pachyamaanaavastha - (Inflammatory Stage)

If Amaavastha is left untreated, Pachyamaanaavastha, the following stage, develops. In this stage, Prakriti Pitta acts on the Dushya to cause disintegration and manifests symptoms such as.^[9]

- Suchibhirivanistudyate
- Dashyatevapippiilikaabhiva
- Chiddayateivashastrena
- Bhidyatevashaktibhihi
- Taadyateivadandena
- Piidyateivapaanina
- Ghatyateiva Cha Angulya
- Dahyatepachyateva Cha Agnikshaarabyam
- Osha Choshaparidahashcha
- Twakvaivarnyashophaabhivruddhi
- Jwara, Daaha, Pipaasa, Aruchi.

Pakwaavastha - (Stage of suppuration)

If Pachyamanavastha is not treated it results in progression of next stage, here there is involvement of Vayudoshā leading to these symptoms.^[10]

- Vedanopashanti
- Panduta
- Alpashophata
- Twakpariputana
- Bastavivodakasancharana
- Muhurmuhutoda And Kandu
- Vyadhiupadrava Shanty

Dosha sambandha

Dosha Sambandha says about involvement and importance of each Dosha in Vrana Shopha.^[11]

- Vata is responsible for - Ruja
- Pitta is responsible for - Paaka
- Kapha is responsible for - Puya
- Rakta is responsible for - Varna

Saadhya asadhyata of vrana shopha

“Alpomahaanvakriyaayavinaayahasamuchritahapaak amupaitishophaha|
Vishaalamulovishamamvidagdhahasakruchratamyaatyavagaadhadoshaha||”^[12]

Management of vrana shopha

The Vrana Shopha should be managed in early stage to avoid suppuration and more tissue harm as described under Shatkriya Kala.

Two types of Upakramas have been mentioned for the management of Vrana Shopha

- Saptopakrama
- Ekaadashaupakrama

Saptopakrama

For the management of Vrana Shopha seven Upakramas have been said by Acharya Sushruta.^[13] The initial four procedures like Vimlapana, Avasechana, Upanaha, Patana,

Patina helps in the management of Vranasopha and other three upakramas like Shodhana, Ropana, Vaikrutapaha is used in managing the wound.

Ekaadashaupakrama

Acharya Sushruta in Chikitsasthana further explains about 11 types of Chikitsa for the management of Vrana Shopha.^[14]

Apatarpana, Aalepa, Paisheka, Abhyanga, Swedana, Vimlapana, Upanaha, Paachana, Visravana, Vamana, Virechana.

Cellulites

Cellulitis is a bacterial skin infection that affects the deeper layers of the skin and the underlying tissues. It is commonly caused by bacteria like Streptococcus and Staphylococcus aureus, which enter the skin through cuts, cracks, or other breaks in the skin's barrier.

Symptoms of cellulitis often include redness, swelling, warmth, and pain in the affected area. The skin may also appear shiny, tight, and stretched. In severe cases, there may be blisters, pus-filled lesions, and fever.

Cellulitis can occur anywhere on the body but is most common in the lower legs and feet. Factors that increase the risk of developing cellulitis include.

- Skin injuries: Cuts, burns, insect bites, or surgical wounds can provide entry points for bacteria.
- Compromised immune system: Conditions like diabetes, HIV/AIDS, or treatments like chemotherapy weaken the immune system, making individuals more susceptible to infections.
- Chronic skin conditions: Eczema, psoriasis, and other skin conditions that cause dry, cracked skin can increase the risk of cellulitis.
- Lymphedema: Swelling of the limbs due to lymphatic system issues can predispose individuals to cellulitis.
- Obesity: Excess weight can lead to skin folds and creases where bacteria can thrive.

Management

Treatment for cellulitis typically involves antibiotics to target the bacterial infection. In mild cases, oral antibiotics may be sufficient, while severe cases or those affecting larger areas

may require intravenous antibiotics in a hospital setting. It's crucial to complete the full course of antibiotics as prescribed by a healthcare professional to prevent recurrence or antibiotic resistance.

Additionally, elevating the affected limb, applying warm compresses, and taking over-the-counter pain relievers can help alleviate symptoms. Proper wound care, including keeping the area clean and covered, is also important for preventing secondary infections.

Complications of untreated cellulitis can be serious and may include the spread of infection to the bloodstream (sepsis), tissue death (necrosis), or the development of abscesses. Therefore, seeking prompt medical attention and adhering to treatment recommendations are crucial for managing cellulitis effectively.

Treatment protocol

Ayurvedic perspective

Herbal remedies: Ayurvedic practitioners may recommend herbs like turmeric, neem, aloe vera, and manjistha for their antibacterial and anti-inflammatory properties.

Dietary changes: A diet rich in fresh fruits, vegetables, and whole grains may be suggested to support overall health and immune function.

Lifestyle modifications: Practicing good hygiene, maintaining proper wound care, and avoiding factors that can aggravate the condition (Like excessive heat or moisture) are emphasized.

Panchakarma therapies: Certain detoxification therapies like Virechana (Therapeutic purgation) or Raktamokshana (bloodletting) may be prescribed based on individual needs.

Modern perspective

Antibiotics: Typically, cellulitis is treated with antibiotics to eliminate the bacterial infection. The choice of antibiotic depends on the severity of the infection and the suspected causative organism.

Pain management: Over-the-counter pain relievers like ibuprofen or acetaminophen may be recommended to manage pain and discomfort.

Elevating the affected area: Elevating the affected limb or area helps reduce swelling and promote drainage of fluids.

Wound care: Proper wound care, including cleaning the affected area with soap and water, applying antibiotic ointment, and covering with a clean bandage, is essential for preventing further infection.

Follow-up Care: Regular follow-up appointments with a healthcare provider are important to monitor the progress of treatment and ensure complete resolution of the infection.

Both Ayurvedic and modern approaches aim to address the underlying cause of cellulitis and alleviate symptoms, but they differ in their specific methodologies and philosophies. It's important to consult with qualified practitioners in each system to determine the most appropriate treatment plan for individual cases.

DISCUSSION

The comparative analysis between Ayurveda's Vrana Shopha and modern medicine's cellulitis reveals intriguing insights into the diverse approaches to understanding and treating skin infections. Both systems bring valuable perspectives to the table, highlighting the importance of a comprehensive understanding of the condition for effective management. One of the fundamental differences between Ayurveda and modern medicine lies in their conceptual frameworks. Ayurveda views health as a balance between the body's three doshas, while modern medicine focuses on pathological processes and microbial causes. This contrast underscores the holistic versus reductionist approaches in healthcare. Ayurvedic treatments for Vrana Shopha involve a combination of herbal remedies, dietary adjustments, and lifestyle modifications aimed at restoring doshic equilibrium. The emphasis is not only on addressing the symptoms but also on treating the root cause and promoting overall well-being. This holistic approach resonates with the growing interest in integrative and holistic healthcare practices. On the other hand, modern medicine's approach to cellulitis centers around bacterial eradication through antibiotics and wound management. While this targeted approach has been highly successful in controlling bacterial infections, concerns such as antibiotic resistance and side effects underscore the need for exploring alternative or adjunctive therapies. The comparative study also highlights the importance of individualized care. Ayurveda emphasizes the unique constitution of each individual (Prakriti) and tailors treatments accordingly, considering factors such as age, lifestyle, and underlying imbalances.

In contrast, modern medicine's approach is more standardized, often following guidelines based on clinical trials and evidence-based medicine. Collaborations and integrative practices between Ayurveda and modern medicine offer promising avenues for improved patient outcomes. Integrating Ayurvedic principles like diet, lifestyle modifications, and herbal supplements into conventional treatment protocols can potentially enhance the efficacy of treatment while minimizing side effects and improving overall patient well-being. Challenges remain in terms of standardization, cross-system communication, and regulatory frameworks. Establishing common ground in terminology, diagnostic criteria, and treatment protocols is essential for meaningful collaboration and knowledge exchange.

CONCLUSION

In conclusion, the comparative study of Vrana Shopha in Ayurveda and cellulitis in modern medicine underscores the richness of diverse medical traditions. By embracing synergies and fostering interdisciplinary dialogue, healthcare systems can evolve towards more personalized, holistic, and effective approaches to managing complex conditions like skin infections.

REFERENCES

1. Kaviraja Ambikadutta Shastri, Sushruta Samhita of Maharishi Sushruta edited with Ayurveda Tattva Sandipika, Sutra Sthan, Chaukhamba Sanskrit Sansthan, Varanasi, 2007; 70: 17-3.
2. Kashinath Shashtri, Gorakhnath Chaturvedi, Charaka Samhita of Charak and Dradhbala, Chikitsa Sthan, Chapter, Chaukhambha Bharti Academy, Varanasi, 2006; 354: 12-8.
3. Sriram Bhatt: SRB's clinical methods in surgery. Jaypee Brothers Medical Publishers (p) Ltd, 2010; 1: 81.
4. Harsh Mohan: Textbook of pathology. Jaypee Brothers Medical Publishers (p) Ltd, 2000; 4: 114-115.
5. K.R. Srikantha Murthy, Illustrated Susruta Samhita, Chaukamba Orientalia, Varanasi, 2001; 17: 1.
6. Kaviraja Ambikadutta Shastri, Sushruta Samhita edited with Ayurveda Tattva Sandipika, Sutrashtana, Chaukhamba Sanskrit Sansthan, Varanasi, reprint, 2007; 71: 17-4.
7. Kaviraja Ambikadutta Shastri, Sushruta Samhita of Maharishi Sushruta edited with Ayurveda Tattva Sandipika, SutraSthan, Chaukhamba Sanskrit Sansthan, Varanasi, Reprint, 2007; 94: 21-36.

8. Kaviraja Ambikadutta Shastri, Sushruta Samhita edited with Ayurveda Tattva Sandipika, Sutrasthana, Chaukhamba Sanskrit Sansthan, Varanasi, reprint, 2007; 71: 17-5.
9. Kaviraja Ambikadutta Shastri, Sushruta Samhita edited with Ayurveda Tattva Sandipika, Sutrasthana, Chaukhamba Sanskrit Sansthan, Varanasi, reprint, 2007; 71: 17-5.
10. Kaviraja Ambikadutta Shastri, Sushruta Samhita edited with Ayurveda Tattva Sandipika, Sutrasthana, Chaukhamba Sanskrit Sansthan, Varanasi, reprint, 2007; 72: 17-6.
11. Kaviraja Ambikadutta Shastri, Sushruta Samhita edited with Ayurveda Tattva Sandipika, Sutrasthana, Chaukhamba Sanskrit Sansthan, Varanasi, reprint, 2007; 72: 17-7, 8.
12. Kaviraja Ambikadutta Shastri, Sushruta Samhita edited with Ayurveda Tattva Sandipika, Sutrasthana, Chaukhamba Sanskrit Sansthan, Varanasi, reprint, 2007; 76: 17-14.
13. Kaviraja Ambikadutta Shastri, Sushruta Samhita edited with Ayurveda Tattva Sandipika, Sutrasthana, Chaukhamba Sanskrit Sansthan, Varanasi, reprint, 2007; 77: 17-18,
14. Kaviraja Ambikadutta Shastri, Sushruta Samhita edited with Ayurveda Tattva Sandipika, Chikitsastha, Chaukhamba Sanskrit Sansthan, Varanasi, reprint, 2007; 77: 1-8.