

An Ayurvedic Clinical Perspective of Vrana Shopha: A Correlation with Inflammatory Swellings

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Abstract—Inflammation is described in Ayurveda by various terms according to the clinical context, including *Shotha*, *Shopha*, *Svayathu*, *Utsedha*, and *Samhata*. Chronic inflammation is considered a significant pathological feature of many chronic degenerative disorders. Ayurveda recognizes inflammation and the associated oedema as important manifestations of disease processes. While modern medicine generally views inflammation as a protective healing response to tissue injury and infection, Ayurveda interprets it not only as a symptom but also as an independent disease entity and a potential complication of other diseases. Degenerative disorders commonly share the pathological basis of persistent inflammation. According to *Ayurvedic* principles, impaired microcirculation during inflammation results from *Srotodushti* (vitiation or obstruction of body channels) caused by *Ama* (metabolic toxins or improperly digested substances). Therefore, a proper clinical understanding of *Vrana Shopha* (inflammatory swelling associated with wounds) in correlation with modern concepts of inflammation plays a crucial role in its effective management and in preventing further complications.

Index Terms—*Aama*, Degenerative Diseases, Inflammation, *Shopha*, *Srotodushti*.

I. INTRODUCTION

Vrana Shopha has been described in the *Ayurvedic* classics of *Brihatrayee* (1500–600 BC) and later elaborated in *Madhava Nidana* (around 700 AD). *Acharya Sushruta* defined *Vrana Shopha* as a localized swelling involving the *Twak* (skin) and

Mamsa (muscle tissue), which may eventually progress to *Vrana* (wound) if not managed appropriately. In modern terms, inflammatory swellings affecting the skin and subcutaneous tissues that may lead to suppuration can be correlated with *Vrana Shopha*.

Inflammation has been recognized in Ayurveda not only as a disease entity but also as a symptom and a complication of various disorders. In modern medicine, inflammation was classically characterized by Celsus (30 BC–38 AD) through the four cardinal signs: Rubor (redness), Calor (heat), Tumor (swelling), and Dolor (pain). Later, Virchow added the fifth sign, Functio Laesa (loss of function^[1]). The concept of *Shopha* described by *Acharya Sushruta* closely resembles inflammatory swelling, as both represent an early pathological stage that may ultimately result in abscess formation or tissue damage.

Clinically, *Vrana Shopha* may be observed in conditions such as boils, furunculosis, cellulitis, and erysipelas. *Acharya Madhava* was the first to discuss *Vrana Shotha* as a distinct disease entity in a separate chapter. According to *Acharya Charaka*, when vitiated *Vata* combines with vitiated Rakta, Pitta, and Kapha, it carries these Doshas towards the peripheral tissues. This leads to obstruction of the *Srotas* (body channels), resulting in the development of *Shotha* (swelling) in the skin and muscle tissues, which may extend beyond a localized region depending on the severity of *Dosha* involvement.

Vrana Shopha Definition:

शोफसमुत्थाना ग्रन्थिविद्रध्यलजीप्रभृतयः प्रायेण व्याधयोऽभिहिता अनेकाकृतयस्तैर्विलक्षणाः ।

पृथुर्ग्रथितः समो विषमो वा त्वङ् मांसस्थायी दोषसङ्घातः शरीरैकदेशोत्थितः

शोफ इत्युच्यते ॥ सु.सू. १७/ ३

A localized swelling produced by the accumulation of vitiated *Doshas* in the skin and muscle tissues, arising in a particular part of the body, may be broad, nodular, uniform, or irregular in shape. Such a swelling is called *Shopha*. Conditions like *Granthi* (cystic swelling), *Vidradhi* (abscess), *Arbuda* (tumor), etc., generally originate from *Shopha*.^[2]

Classification and clinical presentation of Shopha:

स षड्विधो वातपित्तकफशोणितसन्निपातागन्तुनिमित्तः। तस्य दोषरूपव्यञ्जनैर्लक्षणानि व्याख्यास्यामः॥

Acharya Sushruta classified *Shopha* into six types based on clinical manifestations and etiological factors: *Vatika*, *Pittaja*, *Kaphaja*, *Shonitaja*, *Sannipataja*, and *Agantuja Shopha*. This classification facilitates a better understanding of the underlying *Dosha* involvement and aids in accurate diagnosis and management.^[3]

Vataja Shopha

तत्र वातशोफो अरुणः कृष्णो वा परुषो मृदुरनवस्थितास्तोदादयश्चात्र वेदनाविशेषा भवन्ति;

It has following features.

- *Varna* - *Krishna*, *Aruna*.
- *Sparsha* - *Parusha*, *Mrudu*.
- *Toda* and *Anavasthita*.^[4]



Pittaja Shopha

पित्तशोफः पीतो मृदुः सरक्तो वा शीघ्रानुसार्योषादयश्चात्र वेदनाविशेषा भवन्ति;

It has following features

- *Varna* - *Piita*, *Aruna*.
- *Sparsha* - *Mrudu*.
- *Osha* and *Sheeghraanusari*.^[5]



Kaphaja Shopha

श्लेष्मश्चयथुः पाण्डुः कठिनः स्निग्धः शीतः मन्दानुसारि कण्ड्वादयश्चात्र वेदनाविशेषा भवन्ति;

- *Varna* - *Pandu*.
- *Sparsha* - *Kathina*, *Sheeta*, *Snigdha*.
- *Kandu*, *Vedana* and *Mandaanusari*.^[6]



Raktaja Shopha

पित्तवत् शोणितजोऽतिकृष्णश्च;

Similar features as that of Pitta but has-

Varna – *Atikrushna* ^[7]



Agantuja Shopha

पित्तरक्तलक्षण आगन्तुर्लोहितावभासश्च ।

Has mixed features of Pitta and Rakta and has Lohitaavabhasa. [8]



Sannipataja Shopha

सर्ववर्णवेदनः सन्निपातश्चयथुः;

Has combined features of all three Doshas [9]

Aetiopathogenesis of Shopha

It is well established in Ayurveda that an imbalance of the Doshas plays a pivotal role in the initiation and progression of diseases. The etiopathogenesis of Shopha closely resembles the process of inflammation described in modern medical science. Acharya Sushruta explained that the development of Shopha follows a definite and sequential pattern, which can be understood through the concept of Shatkriya Kala, representing the six stages of disease progression. [10]

The six stages of disease progression (Shatkriya Kala) described in Ayurveda are as follows:

संचयं च प्रकोपं च प्रसरं स्थानसंश्रयम्।

व्यक्तिं भेदं च यो वेत्ति दोषाणां स भवेद्विषक्॥ सु.सू. २१/३६

- **Sanchaya** (Accumulation): Gradual accumulation of physiologically active Doshas in their respective sites.
- **Prakopa** (Aggravation): Excitation and aggravation of the accumulated Doshas beyond their normal state.
- **Prasara** (Spread): The aggravated Doshas leave their original locations and spread throughout the body.
- **Sthanasamshraya** (Localization): The vitiated Doshas localize at a susceptible site (Kha-Vaigunya), initiating pathological changes.
- **Vyakti** (Manifestation): Clinical manifestation of the disease with characteristic signs and symptoms.

- **Bhedavastha** (Complication/Differentiation): The final stage in which the disease becomes fully differentiated and may progress to complications, such as suppuration and abscess formation.

Avasthas or Stages of Vrana Shopha

1. Aamaavstha
2. Pachyamaanaavastha
3. Pakwaavastha

Amaavastha - (early stage of inflammation)

In this stage, Kapha Dosha predominates, resulting in the development of swelling. The clinical features associated with Kaphaja Shopha include the following: [11]

तत्र मन्दोष्णता त्वक्स्वर्णता शीतशोफता स्थैर्यं मन्दवेदनताऽल्पशोफता चामलक्षणमुद्दिष्टम्

- **Manda Sparsha and Ushma**: Mild tenderness with minimal increase in local temperature.
- **Twak Savarnata**: The skin retains its normal colour without significant discoloration.
- **Shita and Alpa Shopha**: The swelling is relatively cool to touch and mild in extent.
- **Sthira**: The swelling remains stable and localized without marked progression.
- **Manda Vedana**: Mild or dull pain is experienced at the affected site.

Pachyamaanaavastha - (Stage of Inflammation)

If the Ama Avastha (initial inflammatory stage) is not managed appropriately, it progresses to the next stage known as Pachyamana Avastha, which corresponds to the stage of active suppuration. In this stage, the aggravated Pitta Dosha acts upon the affected tissues (Dushya), leading to tissue disintegration and the development of characteristic clinical features. [12]

सूचिभिरिव निस्तुद्यते, दश्यत इव पिपीलिकाभिस्ताभिश्च संसर्प्यत इव, छिद्यत इव शस्त्रेण, भिद्यत इव शक्तिभिस्ताड्यत इव दण्डेन, पीड्यत इव पाणिना, घट्यत इव चाङ्गुल्या, दह्यते पच्यत इव चामिक्षाराभ्यामोषचोषपरीदाहाश्च भवन्ति; वृश्चिकविद्ध इव च स्थानासनशयनेषु न शान्तिमुपैति, आध्मातबस्तिरिवाततश्च शोफो भवति, त्ववैवर्ण्यं शोफाभिवृद्धिर्ज्वरदाहपिपासा भक्तारुचिश्च पच्यमानलिङ्गम्॥

The symptoms observed during Pachyamana Avastha include:

- **Suchibhiriva Nistudyate**- Pricking pain, as if pierced by needles.

- *Dashyateva* Pipilikabhiva- Sensation of being bitten by ants.
- *Chhidyateiva* Shastrena -Cutting pain, as if incised by a sharp instrument.
- *Bhidyateiva* Shaktibhihi -Splitting pain, as though struck by a spear.
- *Tadyateiva* Dandena -Throbbing pain, resembling a blow from a stick.
- *Pidyateiva* Panina -Compression-like pain, as if squeezed by the hands.
- *Ghatyateiva* Cha Angulya -Pain resembling pressure applied by the fingers.
- *Dahyate* Pachyateiva Cha Agni Ksharabyam- Burning and suppurative sensations, as if exposed to fire or alkali.
- *Osha*, Chosha, and Paridaha -Burning sensation, dryness, and intense heat.
- *Twak* Vaivarnya and Shopha Abhivridhi- Discoloration of the skin along with an increase in swelling.
- *Jwara*-Associated systemic manifestations such as fever, Daha- burning sensation, Pipasa- excessive thirst, and Aruchi- loss of appetite.

Pakwaavastha - (stage of suppuration)

If *Pachyamana Avastha* is not treated appropriately, the condition progresses to the subsequent stage, commonly referred to as *Pakva Avastha*. In this stage, *Vata Dosha* becomes predominant and influences the pathological process. The characteristic clinical features observed during this stage include.^[13]
वेदनेपशान्तिः पाण्डुताऽल्पशोफता वलीप्रादुर्भावस्त्वक् परिपुटनं निम्नदर्शनमङ्गुल्याऽवपीडिते प्रत्युन्नमनं, बस्ताविवोदकसंश्रयणं पूयस्य प्रपीड्यत्येकमन्तमन्ते चावपीडिते, मुहुर्मुहुः स्तोदः कण्डूरुन्नतता व्याधेरुपद्रवशान्तिर्भक्ताभिकांक्षा च पक्वलिङ्गम्॥ ५॥

- *Vedanopashanti*: Reduction or relief of pain.
- *Panduta*: Pale or whitish discoloration of the affected area.
- *Alpa Shophata*: Decrease in the size and intensity of swelling.
- *Twak Pariputana*: Thinning, softening, or rupture of the overlying skin.
- *Basta Ivodaka Sancharana*: Presence of fluctuation, resembling the movement of water within a bladder, indicating pus collection.
- *Muhur-Muhur Toda* and *Kandu*: Intermittent pricking sensation accompanied by itching.

- *Vyadhi Upadrava Shanti*: Subsidence of associated symptoms and complications of the disease.

Dosha Sambandha

The concept of *Dosha Sambandha* explains the specific role and contribution of each *Dosha* in the pathogenesis and clinical manifestation of *Vrana Shopha*. The involvement of individual Doshas can be understood as follows:^[14]

वातादृते नास्ति रुजा न पाकः पित्तादृते नास्ति कफाच्च पूयः । तस्मात् समस्तान् परिपाककाले पचन्ति शोफांस्रय एव दोषाः ॥ सु.सू. १७/८

- *Vata Dosha* is primarily responsible for *Ruja* (pain)
- *Pitta Dosha* is responsible for *Paka* (suppuration and inflammatory changes).
- *Kapha Dosha* contributes to the formation of *Puya* (pus).
- *Rakta* is responsible for *Varna* (changes in colour and appearance of the affected area).

Saadhya Asadhyata of Vrana Shopha

अल्पो महान् वा क्रियया विना यः समुच्छ्रितः पाकमुपैति शोफः ।

विशालमूलो विषमं विदग्धः स कृच्छ्रतां यात्यवगाढदोषः ॥ सु.सू. १७/१५

Whether a swelling is small or large, if it is neglected and left untreated, it gradually undergoes suppuration (*pāka*). As the disease progresses, the swelling develops a broad base, becomes irregular in shape, and the vitiated doshas penetrate deeply into the tissues. Such a condition becomes difficult to manage and cure.^[15]

Management of *Vrana Shopha*

Vrana Shopha should be managed at an early stage to prevent suppuration, limit tissue damage, and halt disease progression as described in the concept of *Shatkriya Kala*. Timely intervention plays a crucial role in achieving better therapeutic outcomes and preventing complications.

For the management of *Vrana Shopha*, Ayurveda describes two groups of therapeutic measures (*Upakramas*):

- *Saptopakrama*
- *Ekadasha Upakrama*

Saptopakrama:

आदौ विम्लापनं कुर्यात् द्वितीयमवसेचनमातृतीयमुपनाहं तु चतुर्थं पाटनक्रियाम्॥ १८॥

पञ्चमं शोधनं कुर्यात् षष्ठं रोपणमिष्यतेऽप्येते क्रमा व्रणशोथाः सप्तमं वै कृतापहम्॥ १९॥

For the management of *Vrana Shopha* seven *Upakramas* have been said by *Acharya Sushruta*.^[16] 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*.^[17] *Apatarpana*, *Aalepa*, *Paisheka*, *Abhyanga*, *Swedana*, *Vimlapana*, *Upanaha*, *Paachana*, *Visravana*, *Vamana*, *Virechana*.

II. INFLAMMATION AND CLINICAL EXAMINATION OF INFLAMMATION-

History

1. Duration:

The duration of the swelling is an important factor in its clinical assessment. Swellings of shorter duration associated with marked pain are generally indicative of acute inflammatory conditions, whereas swellings of longer duration accompanied by mild or minimal pain are suggestive of chronic inflammatory conditions.

2. Mode of Onset:

The onset of swelling provides valuable diagnostic information. A swelling that appears immediately after trauma or develops spontaneously with rapid enlargement and severe pain is generally suggestive of an inflammatory condition.

3. Associated Symptoms:

A detailed history should be obtained regarding associated symptoms such as pain, fever, and other systemic manifestations, as these may indicate an underlying inflammatory process.

4. Pain:

Pain is one of the most common and significant clinical features of inflammatory swellings.

- Nature of Pain: Throbbing or pulsating pain is characteristic of inflammation and often indicates progression towards suppuration.

- Site of Pain: The pain is usually localized to the affected area and corresponds to the site of swelling.
- Time of Onset: It is important to determine whether pain preceded the swelling or vice versa, as this may aid in diagnosis.
- In Inflammatory Conditions: Pain typically develops before the appearance of swelling and serves as an early indicator of the inflammatory process.

5. Progress of Swelling:

The course of the swelling should be carefully assessed. A gradual reduction in the size of the swelling is generally indicative of the resolution phase of an inflammatory process.

6. Fever:

The presence of fever associated with swelling is suggestive of an underlying inflammatory or infective condition and should be evaluated as an important systemic sign.

7. Secondary Changes:

The affected area should be examined for secondary inflammatory changes such as redness, increased local temperature, tenderness, and other signs indicative of ongoing inflammation.

8. Impairment of Function:

A detailed assessment should be made regarding the degree and nature of functional impairment. Enquiry should include the extent of restriction of movement, its severity, and the contribution of the swelling to the loss of function.

Physical Examination

1. General Survey:

During physical examination, the patient should be evaluated as a whole rather than focusing exclusively on the swelling. The general condition, posture, and attitude of the patient should be carefully observed. Particular attention should be given to any abnormal posture or positioning, as it may reflect pain, discomfort, or irritation associated with the swelling.

Local Examination

A. Inspection

1. Colour:

The colour of a swelling often provides important diagnostic clues. Redness of the overlying skin is commonly indicative of an inflammatory swelling.

2. Condition of the Skin Over the Swelling: The skin covering an inflammatory swelling may appear tense, shiny (glossy), red, oedematous, dusky, or indurated. These changes are suggestive of an underlying inflammatory process.

B. Palpation

1. Temperature: An increase in local temperature over the swelling is a characteristic feature of inflammation.
2. Tenderness: Inflammatory swellings are usually associated with tenderness on palpation.
3. Surface: The surface of a swelling may be smooth, lobulated with smooth prominences, nodular, irregular, or rough, depending on the underlying pathology.

By seeing and examining these conditions one can know the progress and can correctly diagnose the stages and give the treatment accordingly. ^[18]

III. DISCUSSION

The concept of *Vrana Shopha* has been described by various *Acharyas*; however, the classification and clinical approach proposed by Acharya *Sushruta* remain highly relevant in contemporary practice. Among the etiological factors, *Agantuja Nidana* (external causes) is particularly significant, as trauma is recognized as a predisposing factor in conditions such as cellulitis, erysipeloid, actinomycosis, Madura foot, and necrotizing fasciitis.

The involvement of *Twak* (skin) and *Mamsa* (muscle tissue) in *Vrana Shopha* can be correlated with the pathogenesis of conditions such as boils, abscesses, cellulitis, and necrotizing fasciitis. Although the inflammatory process begins during the *Ama Avastha*, the classical signs of inflammation become more evident during the *Pachyamana Avastha*. The predominance of Pitta along with the *Tridoshas* during the stage of suppuration (*Paripaka Kala*) is substantiated by the presence of the cardinal signs of inflammation.

The correlation between the cardinal signs of inflammation and the *Doshas* is as follows:

- *Rubor* (Redness) – *Rakta*
- *Dolor* (Pain) – *Vata*
- *Functio Laesa* (Loss of Function) – *Vata*

- Tumor (Swelling) – *Kapha*
- Calor (Heat) – *Pitta*

Thus, *Vrana Shopha* can be considered an inflammatory condition based on the manifestation of these cardinal signs.

The management of *Vrana Shopha* varies according to the stage of the disease. During *Ama Avastha*, therapeutic measures such as *Apatarpana*, *Abhyanga*, *Alepa*, *Vimlapana*, *Parisheka*, and *Upanaha* are indicated. These interventions help arrest disease progression through *Dosha Prashamana* and provide symptomatic relief. In *Pachyamana Avastha*, *Upanaha* and *Pachana* therapies are employed to facilitate suppuration. During *Pakva Avastha*, the decision to perform procedures such as *Darana* or *Patana* depends upon factors including the patient's *Satvabala* (mental strength), *Vaya* (age), *Sthana* (site of lesion), and the degree of suppuration. Incorrect assessment or mismanagement of *Pakva* and *Apakwa Avastha* may result in disease progression and the development of further complications or associated disorders. ^[19]

IV. CONCLUSION

Not all inflammatory swellings progress to suppuration. Therefore, only those forms of *Shopha* that undergo *Paaka* (suppuration) and, if left untreated, eventually develop into *Vrana* (wound) can be considered as *Vrana Shopha*. According to *Ayurvedic* principles, the vitiated *Doshas* should be managed and eliminated during the early stages of the disease. Failure to do so may lead to further aggravation of the *Doshas*, resulting in disease progression, development of complications (*Upadrava Avastha*), and an unfavorable prognosis.

Hence, it is essential for the Vaidya to accurately diagnose the condition and initiate appropriate management at the earliest stage of *Vrana Shopha* to prevent further progression and complications. The selection of therapeutic interventions should be based on the specific *Avastha* (stage of disease), *Dosha* predominance, and clinical manifestations (*Lakshanas*), guided by the physician's *Yukti* (clinical judgment).

A comprehensive approach involving detailed history taking, critical assessment of *Dosha*, *Dushya* (*Vrana Vastu*), and *Avastha*, along with thorough clinical examination and relevant investigations, is necessary

for identifying the underlying pathology, associated disorders, and establishing an accurate diagnosis. Such an approach ensures timely and effective management of *Vrana Shopha* and improves clinical outcomes.

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