"A Comprhensive Ayurvedic Review Of Sandhivata W.S.R To Osteoarthritis"

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ABSTRACT

Sandhivata described in Ayurveda under the spectrum of *Vatavyadh*i is a degenerative joint disorder that closely resembles osteoarthritis in modern medicine. It predominantly affects the elderly population and commonly involves weight - bearing joint such as the knees, hips, shoulders, and small joint of hands. Epidemiological studies indicate that osteoarthritis affects nearly 22-39% of the Indian population, with a higher prevalence among women and individuals above 40 years of age. In Ayurveda, *Sandhivata* is caused by aggravated Vata *Dosha* , which localizes in the Sandhi (joints), particularly in condition of *Dhatu Kshaya* and advanced age.

Classical texts including Charaka Samhita, Sushruta Samhita and Ashtanga Hridaya describe *Sandhivata* as a *Kashta Sadhya Vyadh*i due to the involvement of *Marma* ,*Madhyama Rogamarga and Asthi -Majjavaha* Srotas. The cardinal features include *Sandhishula*(joint pain), *Sandhishotha* (swelling), *Sandhisphutana* (crepitus), and restricted joint movements. The pathogenesis of Sandhivata follows the general *samprapti* of *Vatavyadhi* progressing through the stages of shad Kriyakala from Sanchaya to *Bheda*.

Ayurvedic management emphasizes both preventive and curative approaches, including *Snehana, Swedana,Upanaha*, *Agnikarma,Bandhana*, *Basti* therapy,*Shamana Aushadhi ,Pathya-Apathya* and *Yogasana*.these interventions aim to pacify aggravated Vata, nourish depleted Dhatus and restore joint function. Thus Ayurveda provides a holistic and effective approach for the long-term management of *Sandhivata*, especially in chronic degenerative joint disorder where conventional treatment has limitation.

KEYWORDS -*Sandhivata ,Vatavyadhi, Dhatukshaya ,Agnikarma, Basti* ,Osteoarthritis.

INTRODUCTION

According to the epidemiology Osteoarthritis affects about 22% -39% of the Indian population, with a higher prevalence in women than in men .[1] Osteoarthritis mainly affects individuals above 40 years of age ,most people show some pathological changes in weight-bearing joints.[2] *Sandhigata vata* is categorized in Ayurveda under *Vata vyadhi* in which aggravated Vata Dosa becomes localized in the Sandhi Sthana (joint).This pathological localization result in clinical features such as joint pain, swelling, stiffness and the condition is clinically recognized as *Sandhivata*.[3] It commonly involves the hands, hips, shoulders, knees and other joints. In Ayurvedic literature *Sandhis* are regarded as a category of Marma and are included within *the Roga Marga* highlighting their clinical significance.[4] Thus ,the involvement of Marma, Madhyama *Roga* Marga, predominance of Vata Dosa and Dhatu Kshaya renders the disease *kashta* Sadhya (difficult to cure).it is among the most

common causes of joint pain and functional disability in the elderly population .A large number of Patients with joint pain are frequently encountered in the *kayachikitsa* OPD where conventional treatment modalities often fail to provide satisfactory relief . therefore, a comprehensive understanding of the fundamental principles of the disease is essential for its effective management .

In Ayurveda *Sandhivata* is classified under *Vata Vyadhi* and its is well established the pain of any origin cannot occur in the absence of aggravated *Vata Dosa*.

MTERIAL AND METHOD – Various classical and modern texts, along with resources, review papers, journals, and online resources.

HSTORICAL PERSPECTIVE AND CRITICAL REVIEW OF LITERATURE

Charaka : Acharya Charaka was the first to described this disease as a distinct clinical entity under the name "*Sandhigata Anila* in the chapter on *Vata Vyadhi*. He elaborated only three principal signs and symptoms of the condition [5] (ch.chi.28/37)

Sushruta :

Acharya Sushruta , the pioneer of surgical science, provided a description consistent with that of Charka and endorsed the same clinical features[6]. The therapeutic approach for this condition was first elucidated by Acharya Sushruta[7]. Such as *Snehana* ,*Mardana,Bandhana, Upanaha, Agnikarma* and related procedure.

Ashtanga Hridaya: Acharya Vagabhata also acknowledged this disease entity, and his description of the clinical features and therapeutic approach closely followed those of Charka and Sushruta ,without introducing any significant modification.[8]

DEFINITION OF SANDHIVATA

Although a precise definition of Sandhivata is not explicitly mentioned in the classical texts , Charaka Samhita explains that following Nidan Sevana aggravated Vata Dosa localizes in the Sandhi (joint) and becomes established there. This results in joint swelling that resembles an air filled bag ,with pain predominantly experience during flexion and extension movements of the affected joint .[9]

ETYMOLOGY OF SANDHIVATA

The term *Sandhivata* is formed by the combination of two words, namely Sandhi and Vata .

- Sandhi

According to Vacaspatyam, the word *Sandhi* is derived from the verbal root '*Dha*" which, when combined with the prefix '*sam* and the suffix '*k*i" result in the term Sandhi. Monier Williams explains the meaning of Sandhi us union, junction or combination, indicating the point where to structures come together.

- Vata:-

In Ayurveda, the regulation and execution of all physiological activities of the body are governed by the three *Dosas- Vata, Pitta* and *Kapha* [10]

ETHYMOLOGY:-

The word Vata originates from the verbal root 'VA GATIGANDHANAYOH" which signifies movement and activity, implying the ability to move or function independently.[11]

DEFINATION OF SANDHI:-

Bhasker Govind Ghanekar – the renowned commentator of the Sushruta Samhita has stated that the site in the body where two or more structures come into contact or articulate with one another is turned '*Sandhi*" thus denotes a joint, signifying union or conjunction of bodily structures.

DEFINATION OF VATA:-

That principle which imparts movement, initiates activity, and generates force within the body is known as Vata. In essence, that which is responsible for motion and dynamism is termed Vata.[12]

Properties of Vata:-

According to Acharya Charaka Vayu is characterized by qualities such as *Ruksha*(Dry),*Laghu*(Light), *Shita(*Cold),*Chala*(Mobile),*Sukshma*(Subtle),*Vishada* (Clear), *Daruna* (Hard),*Khara*(Rough) [13]

Vata is also described as *Yogavahi*- meaning it act as carrier or conducting agent. In its balance state, Vata governs and regulates all physiological functions of the body.[14]

OCCURRENCE OF SANDHIVATA

The occurrence of *Sandhivata* may differ depending on factors such as *Dosa*, *Vaya*(age), *Ling*a (gender) and other related variables. A detailed assessment of these influencing factors is presented below.

CATEGORIZATION OF SANDHIVATA

It may be categorized in various ways, as no specific or exclusive classification of *sandhivata* is explicitly described in the available classical texts .

A)Based on the pathogenesis of Vata ,it may be classified as follow .

1. *Dhatukshayajanya* : Condition arising due to depletion or degeneration of bodily tissue (Dhatu kshaya),which is considered a primary etiological factor in *vatavyadhi*

2. *Avaranajanya* : This type arises due to obstruction (Avaran) of *Srotasa* caused mainly by *Kapha* or *Meda* .

3. Mixed (both): Involving both Dhatu Kshaya as well as *Avarana* as contributory factor.

B. Based on Nija and *Agantuja* it can broadly divided into two types .

1. *Nija Sandhivata* :Arising from internal or endogenous causes .

2. *Agantuja Sandhivata* : Resulting from external or traumatic factor .

NIDAN PANCHAKA OF SANDHIVATA

PURVARUPA

According to charka the *Avyakta Lakshanas* (early and unclear manifestation) of *Vata Vyadhi* are considered as its Purvarupa .[15] So, slight or occasional *Sandhishul* seen before the full development of *Sandhivata* can be considered as its *purvarupa.*

RUPA [16]

*Sandhivat*a is characterized by certain symptoms are mentioned which common for all joints.

Sandhishula (Joint Pain)

Sandhishotha (Joint Swelling)

Sandhisphutana (Crepitus)

Sandhihanti (Restricted Movement)

UPASHAYA

All measure that help in reducing the symptoms of *Sandhivata* for a long time are knows as *Upasaya* .For Eexample *Abhyanga, Swedana, Ushna Ritu, Ushna Ahara*.[17]

ANUPASHYA

Food and habits that are *Laghu*, *Sheeta Guna ,Ruksha,in* nature like *Anasana,Alpasana , Sheeta Ritu* and evening hours -are considered *Anupashaya* because they increase pain.[18]

***SAMPRAPTI* (PATHOGENESIS)**

There is no separate *Samprapti* described specifically for *Sandhivata* , therefore its *Samprapti* is understood to be the general *Samprapti* of *Vata Vyadhi*.[19]

Acharya Charka has sated that indulgence in *Nidana Sevana* leads to aggravation of *Vata* ,and the aggravated Vata then lodges in *Rikta Srotas*, resulting in the manifestation of various generalized as well localized disease.

The process of disease development as described through the concept of *Shad Kriya Kala*

1. ***Sanchaya* (Stage of Accumulation)**

Under normal conditions, the Dosha stay in a balanced state within their respective *Ashaya* .However ,exposure to Nidan disturbs this equilibrium and leads to excessive accumulation of *Doshas* in their own *Ashaya* or original site.AT this stage , due to the involvement of *Vata Dosha* , features like *Stambha Purna Koshthata* .[20]

In Patients who may later develop *Sandhigatavata,*

Early signs of *Vata Sanchaya* can be noticed due to its accumulation at its *Mula Sthana* i.e. *Pakvashaya* ,At the same time , symptoms indicating *Vata Vriddhi* may appear in *Asht*i , such as *Asthi Rukshata , Asthi Kharta* as Ashti is considered the main seat of *Vata* , This is attributed to the effect of Nidana, which acts on both *Dosha* and *Dushya.*

2. ***Prakopa* (Stage of Vitiation)**

If corrective measures are not adopted during the Sanchaya Avastha and the process is allowed to continue , the *Prakopa* stage begins , in this stage ,the already accumulated Dosha becomes more intense at its own site and gets further aggravated . As a result of Vata provocation , manifestation such as *Kosthatoda* and *Kostha Sancharana* may occur. [21]

Symptoms such as *Asthi Rukshata* and *asthi kharta* may be seen in a more severe form.

3. ***Prasarana* (Stage of spread)**

When the previously existing provoking factors are not managed appropriately, the disturbed *Doshas* progress to the *Prasara* stage , the aggravated *Doshas* spread beyond their original site and extend to various organs ,structure and parts of the body. [22] Symptoms such as *Asthi Rukshata* and *Asthi Kharata* may manifest in a more pronounced or sever form. Due to *Vata Vriddhi, Khavaigunya* can develop in the *Asthi* and *Majjavaha Srotas.*

4. **Sthana Samshraya (Stage of localization)**

As a result of the preceding stage and conditions, the Doshas settle at sites where *Khavaigunya* is present .This localization initiates the development of a disease specific to that particular structure .This stage corresponds to the *Purvarupa* phase of the disease, during which the interaction between *Dosha* and *Dushya* begins.[23]

In *Sandhigatavata,* the aggravated Vata become localized at sites of *Khavaigunya* present in the *Asthi* and *Majjavaha Srotas* . In other words ,the *prakupita Vata* settles in the *Asthi* and *Sandhi* ,leading to the development of *asthi* and *Sandhigatavata* .At this stage ,*purvarupa* of the disease, such as occasional *Sandhishula* and Sotha are observed.

5. *Vyakti* (Stage of Onset) [24]

At the stage shows the disease become clearly evident with all its characteristic signs and symptoms ,known as *Rupa.*

After getting *Sthan Sanshraya* in *Asthi* and *Sandhi* ,aggravated *Vata* ,due to its *Ruksha* and *Khara* properties ,depletes the Sneha of these structures ,leading to the *Vyaktiavastha.*

6. *Bheda* (Stage of Complication) [25]

According to Sushruta, if appropriate treatment is not instituted at this stage, the aggravated Dosas or the disease itself may progress to an incurable state. Serious complication can develop, such as joint subluxation, deformity ,and restriction or complete loss of joint movements. In the advanced stage of the disease , *Hanti Sandhigata* manifests . the term *Hanti Sandhigatah* denotes condition like *Sandhivishlesh*a or *Stambha,*which appear in this phase.

CHIKITSA (MANAGEMENT)

Acharya Sushruta was the first to elaborate the chikitsa in detail, He emphasized the use of *Snehana*, *Upanaha* in condition where vitiated Vata is localized in *Snayu*, *Asthi* and *Sandhi*.[26]

***Snehana* (Oleation therapy)**

Snehana therapy is administered in two forms .

1. External application (*Abhyanga*)
2. Internal application (*Snehapana*)

Both internal and External *Snehana* are considered beneficial in the management of *Sandhivata.*

***Upanaha* (Poultie)**

Upanaha is described by Acharya Sushruta as one of the four types of *Swedan*a- *Swedan*a is a procedure that alleviates stiffness, heaviness and cold while include perspiration .*Upanaha* serves a dual purpose, acting both as a *Purvakarma* as well as a Pradhana Karma.

***Agnikarma* (Therapeutic Cauterization)**

Agnikarma applied over the affected joint effectively reduces pain. For performing *Agnikarma* on *Sandhi,substances* like *Madhu, Guda* and *Sneha* are used. It is mentioned that disorders treated by *Agnikarma* do not recur, whereas those managed by *Kshara Karma* or *Shastra Karma* have a possibility of recurrence.

***Bandhana* (Bandaging)**

Bandhana is involves firm bandaging of the affected *Sandhi* using the leaves of *Vatashamak* drugs . This tight bandaging prevents *Vata* from causing distension in the joint. In *Sandhigata Vata*, the swelling appears like an air filled bag, and *Bandhana* helps in reducing this type of *Shotha*.

***Unmardana* (Deep Rubbing Massage)**

This massage technique involves applying pressure over the affected Sandhi. It helps in reducing *Shotha* and improves local blood circulation .

***Basti* (Enema Therapy)**

As *Sandhivata* belongs to *Madhyma Rogamarga Basti* is considered the most effective line of treatment . In *Sandhivata,Sneha* Basti is especially indicated in view of *Dhatukshaya* and the advanced age of affected individuals .

Yogasana - can be beneficial to certain extent in the prevention and management of *Sandhivata*. Regular practice of *Yogasana* help in alleviating symptoms in various ways , such as reducing excess body weight and improving laxity (bhole -1982) . Yogasana also enhance posture (Yogendraji-1984) , which is an important predisposing factor in the development of *Sandhivata.*

Pathya -Apathya

Spesific Pathya and Apathya for Sandhivata are not separately described, however since it is a *Vatavyadhi*,the general Pathya and *Apathya* recommended for *vatavyadhi* should be followed.

Table No. -1 *Pathya Ahara* (Beneficial dietary elements)- *Pathya Vihara(* Beneficial lifestyle)

Pathya Ahara	*Pathya- Vihara*
Mamsa,Raktashali,Godhuma, Godughdha, Ghrita, Ajadugdha,Draksha, Ama,Madhuka, Ushna Jala, Amlakanjika, Sura, Surasava,Madhura,Amla,lavana, Rasa pradhana Ahara are *Pathya.*	*MriduShayya, Atapa Sevana, Ushnodaka* Snana etc.

Table No. - 2 *Apathya Ahara*(Avoidable dietary elements)- *Apathya Vihara* (Avoidable lifestyle)

Apathya Ahara	*Apathya Vihara*
Kodrava,Yava,Chanaka,,Sheeta Jala,Kalaya, Ati Madhya Pan,Sushka Mamsa ,Katu, Tikta, Kashaya Rasa Pradhan Ahara are *Apathya.*	*Ratri Jagarana, Chinta, Shrama, Vega Vidharana, Anashna, Vyavaya, Vyayama, Kathina Shayya, Ati Vyavaya, Ati Vyayama, Cankramana* are *Apathya* .

***Shamana Therapy* (Palliative Treatment)**

After performing *Shodhana* or adequate *Langhana* and *pachana* ,*Shamana* therapy helps in effectively controlling the residual symptoms.

The following drugs can be administered for *Pachana* or *Agnidipana* in Patients of Sandhivata.[27]

- *Rasna*
- *Lasuna*
- *Panchatikta Dravya Kashya*
- *Agnitundi Vati, Sanjivani Vati*
- *Lasunad Vati*
- *Hingvastak Churna* .

Shivakshara Pachana Churna etc.this medicine are useful for correcting *Agni* prior to initiation of *Shaman*a therapy.

Drugs Used as Shamana therapy for Treatment of Sandhivata

Guggulu Kalpana

Laksha Guggulu, Yogaraja Guggulu, Panchatikta Guggulu,Abha Guggulu, Mahayogaraja Guggulu, Tryodashanga Guggulu,Rasnadi Guggulu,Gokshuradi Guhhulu,Saptavinshati Guggulu,Tryodashanga Guggulu [28]

Sneha Kalpana

Rasna taila ,Nirgundi taila ,Dashmuladi taila ,panchtikta ghruta,Lashunadi taila. [29]

Kwatha

Dashmula Kwatha, Phalatrikadi Kwatha,rasnasaptak kwatha ,Maharasnadi Kwatha,Punarnawadi kwatha, Gokshuradi kwatha,Punarvashtak Kwatha.[30]

Rasa Aushadha

Godanti Bhasma,Navajivana rasa, bruhatavatchintamani rasa,Muktasukti Bhasma ,Vatavidhvansa rasa [31]

DISCUSSION

Sandhivata is primarily a disease of degeneration and aging, where Vata Dosha becomes aggravated due to factor such as Dhatu kshaya, improper diet, lifestyle errors,and senility. The resemblance between Sandhivata and osteoarthritis is evident in terms of etiology ,symptomatology, and chronic progressive nature. Classical description of joint pain, stiffness, swelling and crepitus closely correlate with modern clinical findings of osteoarthritis.

The Samprapti of Sandhivata highlights the central role of Vata Dosha, particularly its Ruksha, Khara and Sheeta properties, which lead to depletion of joint lubrication and structural integrity. The involvement of Asthi and Majja Dhatu further explain the Progressive degeneration and deformity seen in advanced stages. The concept of shad *Kriyakala* provides an opportunity for early diagnosis and intervention ,which is crucial in preventing joint damage. Management principle described by Acharya Sushrut and other Acharyas are highly relevant even today. Therapies such as *snehana,Upanaha* and *Basti* directly contact *Vata* vitiation and *Dhatu Kshaya. Agnikarma* is particularly effective in pain management and is noted for its low recurrence rate. *Shamana* therapies including Guggulu, and preparation , Sneha Kalpana and *Kwatha* formulation help in controlling pain ,inflammation and improving joint mobility. Additionally, *Pathya-Apathya* and *yogasana* play a vital role in preventing disease progression and improving quality of life .

CONCLUSION

Sandhivata is a chronic , degenerative joint disorder with a strong correlation to osteoarthritis. Due to the predominance of *Vata Dosha, dhatu Kshaya* and involvement of *Madhyama Rogamarga* , the disease is difficult to cur but can be effectively managed with appropriate Ayurvedic interventions. Early diagnosis, lifestyle modification and timely administration of panchakarma and Shamana therapies can significantly reduce pain, stiffness, and disability. Ayurveda offers a comprehensive, holistic and cost -effective approach for the long term management of *Sandhivata*, making it highly relevant in the present era of increasing degenerative joint disease.

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