

MANAGEMENT OF ASTHIVAHA SROTODUSHTI WSR TO OSTEO- ARTHRITIS – AN APPRAISAL

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ABSTRACT

In *Ayurveda* internal transportation system of the body is explained by the concept of *Srotas*, which means the structure through which *Sravana* takes place. *Vata* being aggravated will vitiate the *AsthivahaSrotas* leading to the degeneration of the joints including articular cartilage and subchondral bone because of *Asthivaha Srotodushti* leading to Osteo-arthritis. Osteoarthritis is the disease of *Asthivahasrotas* featured with symptoms like breaking pain, edema and limitation of movements of the joints etc., with worldwide prevalence of 9.6% in men and 18% in women at the age of 60 years. It is the highest ranking disease among Musculo-skeletal diseases. *Tikta Samyukta Ksheera SarpiBasti* can be adopted for the better management of this ailment.

Key words: *Asthi, Asthivaha, Srotas, Dushti, Osteoarthritis, Basti, TiktaKsheeraBasti, Calcium.*

INTRODUCTION

In *Ayurveda* internal transportation system of the body is explained by the concept of *Srotas*(channel) which means the structure through which *Sravana* (i.e. Oozing) takes place. Among all the *Srotas*, *Asthivahasrotas* is having its own importance with its susceptibility to get vitiated (*Dushti*) and giving rise to different disorders. Osteoarthritis is one among them with worldwide prevalence of 9.6% in men and 18% in women at the age of 60 years. It is the highest ranking disease among Musculo-skeletal diseases. *Srotodushti*(vitiating) is of four types like *Atipravrutti, Sanga, VimargaGamana* and *Siragranthi*. *Vata* being aggravated at the age of 50-60 years will cause *AsthivahaSrotodushti* leading to the degeneration of the joints (*Asthidhatu*) including articular cartilage and subchondral bones (Osteoarthritis).

Ashraya-AshrayeebhavaSambandha of *Vata* and *As-*

thidhatu having its own role in the disease causation.

AsthivahaSrotodushtiLakshanas includes *AsthiVridhhi* and *KshayaLakshanas*. We can observe the similarities in the symptoms of Osteoarthritis with *AsthivahaSrotodushtiLakshanas* like heaviness, inflammation in the joints, pain, and deformity in the joints and crepitus in movements. So Osteoarthritis can be considered as a *Vikara* of *AsthivahaSrotodushti* and treatment principles mentioned for *AsthidhatuVikaras* like *Panchakarma* procedures especially *Tikta-Samyukta KsheeraSarpiBasti* can be adopted for better management. The mode of action of drug in this procedure can be interpreted by using the concepts like *Panchamahabhutas, Ashraya-AshrayeebhavaSambandha, Dravyas* used for the procedure with their *Gunas*(attributes) and concept of *Kalaa* (like *AsthidharaKalaa* is nothing but *Pureeshad-*

haraKalaa). In contemporary science also it is proved that intestines only regulate the absorption of calcium which is very essential for healthy bones. In this way Osteoarthritis can be better managed with *Ayurvedic* approach in a scientific manner.

MATERIALS AND METHODS

Review of literature of concepts related to *AsthivahaSrotodushtiVikara*, Osteoarthritis and analysis and interpretation of probable mode of action of *TiktaSamyuktaKsheeraSarpibasti*.

AIMS AND OBJECTIVES:

1. To interpret symptoms of *AsthivahaSrotodushti* with Osteo-Arthritis.
2. To analyze critically the Probablemode of action of *TiktaSamyuktaKsheeraSarpibasti* for the management.

LITERATURE REVIEW

Asthidhatu: It is the fifth *Dhatu*(tissue) among the *Saptadhatu* mentioned by the *Acharyas*, formed from *Medodhatu*. *Dehadharana*(supporting the body) is the prime function of *Asthidhatu*. It can be comparable with osseous tissues i.e. bones, cartilages and teeth. *AsthidhatuVridhhi* leads to the excessive growth of bones and teeth and over growth (one above the other). Its *Kshaya* causes pricking pain in the bones, falling of tooth, nail and hairs. *Asthi* becomes so porous and get fractured even with little strain or accidents¹.

Srotas: Internal transportation system of the body is explained by the concept of *Srotas* which cannot be compared exactly with any modern terminology. The term *Srotas* is derived from the main Sanskrit root ‘*Srusrawane*’ which means the structure to exudate, to ooze, to filter and to permeate². It is neutral in gender. The *Srotas* are numerous but for the convenience and easy understanding *AcharyaCharaka* has described 13 types of

Srotas which includes *Prana, Udaka, Anna, Rasa, Rakta, Mamsa, Medo, Asthi, Majja, Shukra, Mutra, Sweda* and *Pureeshavahasrotas*³. But *AcharyaSushruta* has described 11 pairs of *Srotas* excluding *Asthi, Majja, Swedavahasrotas* and adding *Artavavahasrotas*⁴.

Asraya- AshrayebhavaSambandha: *Vata-Dosha* resides in the *Asthidhatu*, *Pitta Dosha* resides in the *Rakthadhatu* and *Kapha-Dosha* in the rest of the *Dhatu*. When *Dosha* residing in a *Dhatu* increases, the particular *Dhatu* will also get increased. But this rule is just reverse in case of *Vata* and *Asthi*. i.e. the aggravated *Vata* will cause the depletion of *Asthidhatu*⁵.

Asthivahasrotas: Channels of transportation for *Asthaayi* (*Poshaka, Sukshma*) *Asthidhatu* to their destination are *Asthivahasrotas*⁶. According to contemporary view, *Asthivahasrotas* may be compared with nutrient artery of bone which carries essential nutrients to it. *Charaka* mentions *Mulasthanas* of *Asthivahasrotas* as *Medas* and *Jaghana* (groin region/flat pelvic bones). *Medas* is the fourth *Dhatu* and *Asthi* is formed from *Asthiposhakamsha* of *Meda* i.e. *AsthaayiMedodhatu*. Nutrition of *Asthidhatu* depends on proper nourishment of *Medodhatu*. So *Meda* is the *Mulasthanas* of *Asthi*. Any abnormality in structure and function of *Jaghana* i.e. groin or pelvic regions leads to disturbance in the upright position of living body because they are the pillars of the body, doing the *Dharana Karma*, which is the prime function of *Asthidhatu*; so, *Medas* and *Jaghana* are rightly said as root of *Asthivahasrotas*⁷.

AsthivahaSrotodushti: Components of the body cannot undergo any change i.e. *Kshaya* or *Vridhhi* without any involvement of the *Srotas*⁸. *Srotodushti* i.e. deformity or malfunctioning will take place when vi-

tiated *Dosha* get localized in the *Srotas*. *Atipravrutti* (Excessive flow), *Sanga* (Obstruction), *Siragranthi* (Extra growths) and *Vimarga Gamana* (Reverse flow) are the types of *Srotodushti*⁹. Exercise, involving excessive irritation and rubbing of bones and intake of *Vata* provoking food will lead to *Sanga* and *Vimarga Gamana* types of *Srotodushti* in *Asthivahasrotas*. It will lead to *Vridhhi* (*Adhyasthi*, *Adhidantha*, *Danta*, *Asthi Bheda*) or *Kshaya* (*Shoola*, *Vivarnatha* of *Dantha* and *Asthi*, deformity of *Kesha*, *Loma*, *Nakha* and *Smasru*) of *Asthidhatu*¹⁰.

Khavaigunya in *Sandhi Sthana* leads to accumulation of *Vata* (*Sthana Samshraya*). At this stage, *Dosha Dushya Sammurchhana* takes place leading to destructive changes in *Asthi* and diminution of *Sleshaka Kapha*, further leading to appearance of symptoms of *Sandhigata Vata* like the joint feels as an air filled bag (*Vata Purnadritisparsha*) and pain during flexion and extension (*Akunchana Prasarana Pravritti Savedana*)¹¹.

OSTEOARTHRITIS VIS-À-VIS SANDHIGATA VATA

Osteoarthritis is a condition of synovial joints characterized by focal loss of articular hyaline cartilage with proliferation of new bone and remodeling of joint structure. It is the most common type of arthritis. Cartilages are slippery tissues covering ends of bones and allow bones to glide one over another. After cartilage degeneration, bones rub together causing pain, swelling and loss of motion of joints or limitation of movements resulting in joint stiffness which may be caused by synovitis with effusion or osteophyte formation (as in Heberden's nodes). Deep achy pain that worsens with use, morning stiffness, crepitus and limitation of

range of movement are characteristic features¹².

We can observe the similarities in the features of Osteoarthritis with *Asthivaha Srotodushti* like heaviness, inflammation in the joints, pain, crepitation in movements and deformity in the joints. So it can be considered as *Asthivaha Srotodushti Vikara*.

TREATMENT PRINCIPLE

Considering as an *Asthivaha Srotodushti Vikara*, treatment mentioned for *Asthi Dhatu Vikaras* i.e. *Tikta Samyukta Ksheera Sarpi Basti* can be adopted for Osteoarthritis.

DISCUSSION

Osteoarthritis is an *Asthivaha Srotodushti Vikara*, X-ray findings in Osteoarthritis like joint space narrowing, subchondral sclerosis, formation of osteophytes and subchondral cysts also gives us an idea about *Asthivaha Srotodushti Lakshanas*.

A number of analgesics, anti-inflammatory drugs as well as steroids are available for it. However, a permanent relief is not provided by any of these and the same is still under research. *Ayurveda* can provide such treatment which controls pathogenesis and prevent the patient from developing complications and surgical treatment.

Asthivaha Srotodushti Vyadhi can be treated by *Basti* procedure of *Panchakarma* by taking *Tikta Samyukta Ksheera Basti* added with *Sarpi*¹³.

For the purpose of interpreting the probable mode of drug action four concepts are utilized here under:

- Concept of *Dosha*
- Concept of *Pureeshadhara Kalaa*
- Concept of *Guna*
- Concept of *Panchamahabhutas*
- Calcium metabolism in Large intestines

PROBABLE MODE OF DRUG ACTION:

- *Vata* is the dominant involved *Dosha* in the causation of Osteoarthritis so *Basti (Anuvasana)* is the specific choice of treatment¹⁴.
- Importance of *Basti* in this context also can be interpreted using the concept of *Kalaa*. *PureeshadharaKalaa* and *AsthidharaKalaa* are one and the same¹⁵ i.e. if *PureeshadharaKalaa* is nourished (by *Basti*) thereby it will nourish the *AsthidharaKalaa (Asthidhatu)*. Hence *Basti* is the treatment mentioned in the management of *Asthidhatu Vikaras*.
- A drug which is having *Snigdha*, *Shoshana* and *Khara Gunas* only can nourish the *Asthidhatu* but unfortunately no single *Dravya* is available having all these 3 properties so *Acharyas* explained to use the combination of *Dravyas* having all three properties to act at *Dhatu* level by the combination of *Tikta Rasa Dravya*, *Ksheera* and *Sarpi*. *Tikta rasa* having *Khara*, *ShoshanaGunas* and *SnigdhaGuna* is the quality of *Ksheera* and *Sarpi*, Which will aid in the successful nourishment of *Asthidhatu*¹⁶.
- *Panchabhoutikatwa* of *Tikta Rasa* is *Vayu* and *Akashabecause* of which it can easily penetrate through and capable of reaching deeper *Dhatu* i.e. *Asthidhatu* having similar Composition and it will act as a medium for *Ksheera* and *Sarpi* to reach *Asthi* thereby nourishing it¹⁷. Even *Ksheera* and *Sarpi* surely have their role in pacifying the *VataVardhaka* property of *Tikta Rasa*¹⁸.
- Calcium metabolism which is very essential for the rigidity of bones is regulated by the intestine by adjusting the

absorption of calcium¹⁹. Cow milk composed of maximum Calcium which is used in *TiktaSamyuktaKsheeraSarpiBasti* procedure. Calcium is being absorbed both actively and passively in the Large intestine there by expected to help the healthy growth and rejuvenation of osseous tissue²⁰.

CONCLUSION

Osteoarthritis which can be comparable with *Asthivahasrotodushti Janita Vyadhi* which can be better managed with *Ayurvedic* special modality treatment *Basti* i.e. *Tikta Samyukta Ksheera Sarpi Basti*.

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