

Role of *Panchtikta Guggulu Ghrita* in *Sandhigata Vata* w.s.r. Osteoarthritis

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ABSTRACT

Acharyas described the disease (*Sandhigata vata*) as name of *Sandhigatanile* with symptoms of *Shotha* (edema), *Vatapurnadritisparsha* (on palpation revealed as air filled bag) and pain with *Prasarana* and *Akunchana* (movement). In old age, all *Dhatus* undergo *Kshaya* (degeneration), Thus leading to *Vataprakopa* and making individual prone to many diseases. Among them *Sandhigata Vata* (Osteoarthritis) stands top in the list. Having the symptoms like pain, swelling, crepitus and restricted joint movements. *Ayurveda* highlighted degenerative diseases under the concepts like "*Dhatu Saithilyam*" and "*Dhatu Kshayam*". *Sandhigata Vata* is one of such disease, which needs a specific target of therapeutic intervention to check or slow down the process of "*DhatuKshaya*" and to pacify *Vata*. It limits everyday activities such as walking, dressing, bathing etc., thus making individual handicapped. We can correlate *Sandhigata Vata* with osteoarthritis (OA) on the basis of clinical features. According to data produced by the Dutch institute for Public Health, The prevalence of Knee OA in those aged 55 and above was 15.6% in men and 30.5% in women, respectively. *Panchtikta Guggulu Ghrita* may be effective in the management of *Sandhivata* (Osteoarthritis).

Key Words: *Sandhivata, Osteoarthritis, Panchtikta Guggulu Ghrita*

INTRODUCTION

The *Vatavyadhi* is described first in classics¹, because the *Vatavyadhi* includes Neurological, Musculoskeletal, Connective tissue, Bone and joint disorder. *Sandhigata Vata* is also a *Vatavyadhi* and it can be correlate to musculoskeletal disorders which affects bone and joint. In *Ayurveda* it is described as name of *Sandhigatanile* with symptoms of *Shotha* (edema), *Vatapurnadritisparsha* (on palpation revealed as air filled bag) and pain with *Prasarana* and *Akunchana* (movement)^{2,3}. *Sandhigata Vata* is

one of such disease, which needs a specific target of therapeutic intervention to check or slow down the process of "*DhatuKshaya*" and to pacify *Vata*. We can correlate *Sandhigata Vata* with osteoarthritis (OA) on the basis of clinical features. A is defined as a chronic joint disorder with progressive softening and disintegration of articular cartilage and bone at joint margin called osteophytes and capsular fibrosis. It is clinically represented as joint pain, stiffness, tenderness, crepitus and functional Impairment.

Community survey data in rural and urban areas of India show the prevalence of OA to be in the range of 17% - 60.6%⁴. The prevalence of Knee OA in those aged 55 and above was 15.6% in men and 30.5% women respectively.

Presently NSAIDs, Analgesics. Corticosteroids, Hyaluronic Acid are used in modern system of medicine for providing relief in pain and swelling. All these medicines have a lot of side effect such as-risk of gastric erosion, edema, nausea, vomiting, hepatotoxicity, nephrotoxicity, hemorrhages etc.

A lot of drugs have been prescribed in *Ayurveda* for management of *Sandhigata Vata* such as *Trayodashang Guggulu*, *Lakshadi Guggulu*, *Dashamoola Kwath* etc. Along with the oral medications many *Panchakarma* procedures are also prescribed for treatment of this disease.

Acharya Vagbhatta mentioned *Panchtikta Guggulu Ghrita* in *Vatavyadhichikitsa prakarana* which is effective in *Sandhi*, *Asthi*, *Majjagata Vata*⁵.

MATERIAL AND METHODS:

Disease review -In *Charaka Samhita* the disease is first described as *Sandhigatah Anile* which is characterised by *Shotha*, *Vatapurnadritisparsha*

(feeling like air filled bag), *Akunchana* and *Prasaranapravriti Savedna* (pain during movement of joint on flexion and extension)⁶. *Acharya Susruta* mentioned *Sandhigata vata* as vitiated *Vata* accumulate in *Sandhi* and impaired the function of joint (*HantiSandhigatah*) with pain (*Shoola*) and swelling (*Shopha*)⁷. *Sandhigata Vata* is one of such disease, which needs a specific target of therapeutic intervention to check or slow down the process of "*Dhatukshaya*" and to pacify *Vata*. It limits everyday activities such as walking, dressing, bathing etc., thus making individual handicapped. The pathology of *Sandhigata vata* started with vitiation of *Vata* specially, *Vyana Vayu*. It may be due to *Dhatukshaya*, *Avarana* and *Vatavardhak Aahara Vihara*. It is degenerative joint disease mainly occurring in old age and mostly due to *DhatuKshaya*.

Drug review - *Acharya Vagbhatta* mentioned *Panchtikta Guggulu Ghrita* in *Vatavyadhi chikitsa prakarana* which is effective in *Sandhi*, *Asthi*, *Majjagata Vata*⁸.

In a research trial, *Panchtikta Gugulu Ghrita* showed better results in symptoms of *Sandhivata* like pain, stiffness and swelling⁹.

***Panchtikta Guggulu Ghrita*¹⁰**:-

Table 1 All used contents with their family name, botanical name and used part ratio

S.	Name of ingredients	Family name	Botanical name	Part used	Ratio to be used in the drug
1	<i>Nimba</i>	Meliaceae	<i>Azadirachta Indica</i>	<i>Tvaka</i>	1 Part
2	<i>Guduchi</i>	Menispermaceae	<i>Tinospora Cardifolia</i>	<i>Kanda</i>	1 Part
3	<i>Vasa</i>	Acanthaceae	<i>Adhotoda Vasika</i>	<i>Moola</i>	1 Part
4	<i>Patola</i>	Cucurbitaceae	<i>Trichosanthes Dioica</i>	<i>Patra</i>	1 Part
5	<i>Nidigdhika</i>	Solanaceae	<i>Solanum Surattense</i>	<i>Panchanga</i>	1 Part
6	<i>Guggulu</i>	Byeseraceae	<i>Commiphora Mukul</i>	<i>Niryasa</i>	1/2 Part
7	<i>Vidanga</i>	Myrsinaceae	<i>Embelia Ribes</i>	<i>Phala</i>	1/40 part
8	<i>Haridra</i>	Zingiberaceae	<i>Curcuma Longa</i>	<i>Kanda</i>	1/40 part
9	<i>Pippali</i>	Piperaceae	<i>Piper Longum</i>	<i>Phala, Moola</i>	1/40 part

10	<i>Rasna</i>	Asteraceae	Pluchea Lanceolata	<i>Patra</i>	1/40 part
11	<i>Vacha</i>	Araceae	Acorus Calamus	<i>Moola, Kanda</i>	1/40 part
12	<i>Maricha</i>	Piperaceae	Piper Nigrum	<i>Phala</i>	1/40 part
13	<i>Arushkara</i>	Anacardiaceae	Semecarpus Anacardium	<i>Phala</i>	1/40 part
14	<i>Ativisha</i>	Ranunculaceae	Aconitum Heterophyllum	<i>Kanda</i>	1/40 part
15	<i>Manjishtha</i>	Rubiaceae	Rubia Cordipholia	<i>Moola</i>	1/40 part
16	<i>Patha</i>	Manispermaceae	Cissampelos Pareira	<i>Moola, Kanda</i>	1/40 part
17	<i>Rohini</i>	Scropularaceae	Picrorhiza Kurroa	<i>Moola</i>	1/40 part
18	<i>Yavani</i>	Umbelliferae	Trachyspermum Ammi	<i>Phala</i>	1/40 part
19	<i>Gajpippali</i>	Araceae	Piper Chaba Hunter	<i>Phala, Moola</i>	1/40 part
20	<i>Kushtha</i>	Compositae	Saussurea Lappa	<i>Moola</i>	1/40 part
21	<i>Chavya</i>	Piperaceae	Piper Retrofractum	<i>Moola, Phal</i>	1/40 part
22	<i>Tejovati</i>	Rutaceae	Zanthoxylum Armatum	<i>Tvacha, Phala</i>	1/40 part
23	<i>Kutaja</i>	Apocynaceae	Holarrhena Antidysenterica	<i>Tvaka, Beeja</i>	1/40 part
24	<i>Surdaru</i>	Pinaceae	Cedrus Deodara	<i>Kandasara</i>	1/40 part

Table 2 All used contents with their synonyms, properties and actions¹¹⁻³⁷

S.No	Ingredients	Synonyms	Properties & Action				
			Rasa	Guna	Virya	Vipaka	Karma
1	<i>Nimba</i>	<i>Pichumarda, Hinguniryas, SarvatobhadraSheeta, Peetsarak, Yavaneshta, Shukpriya, Subhadra, Krimighna</i>	<i>Tikta</i>	<i>Tikta, Laghu, Snigdha</i>	<i>Ushna</i>	<i>Katu</i>	<i>Vatahara, Kaphahara, Rasayana, Pachan</i>
2	<i>Guduchi</i>	<i>Mahaparnika, Amruta, Vishalya, Tandrika, ChakralakshanaJvarnashi</i>	<i>Tikta, Kashaya</i>	<i>Laghu</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Tridosashamaka, Sangrahi, Balya, Rasayana, Jvarghna</i>
3	<i>Vasa</i>	<i>Vasika, Vajidanta, ShinghasyaBhishakmata, Sheetkarni</i>	<i>Tikta, Kashaya</i>	<i>Laghu</i>	<i>Shita</i>	<i>Katu</i>	<i>Kaphapittahara, Kasaghna, Hradya</i>
4	<i>Patola</i>	<i>Tikta, Rajifal, Kasbhanjan, Amritfal, Katuphala, Nagamrita, Kasmardan, Kushthagni, Kushtha</i>	<i>Tikta</i>	<i>Laghu Ruksha</i>	<i>Ushna</i>	<i>Katu</i>	<i>Tridoshghna</i>
5	<i>Nidigdhika</i>	<i>Dusparsha, Vyaghri, Kantkari, Dhavani, Vartaki, Rastriki, Bahugudakuli</i>	<i>Katu, Tikta</i>	<i>Laghu, Ruksha</i>	<i>Ushna</i>	<i>Katu</i>	<i>Deepana, Pchan, Aamdoshanashak, Sothahara</i>
6	<i>Vidanga</i>	<i>Chitratandul, Jantughna, Krishnatandul VatariJantunashana</i>	<i>Katu, Tikta</i>	<i>Ruksha, Laghu, Tikshna</i>	<i>Ushna</i>	<i>Katu</i>	<i>Deepan, Anuloman, Vatakaphapaha</i>
7	<i>Haridra</i>	<i>Nisha, Kanchani, Jayanti, Krimighna, Yoshitpriya, Harita</i>	<i>Tikta, Katu</i>	<i>Ruksha</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kaphapittanut, Vishghna, Varnya, Kushthghna, Premehashaka, Krimighna</i>

8	<i>Pippali</i>	<i>Magadhi, Krishna, Vaidehi, Chapala, Kana, Ushna, Upkulya, Katubija</i>	<i>Katu, Tikta, Madhura</i>	<i>Snigda, Laghu</i>	<i>Anushna</i>	<i>Madhura</i>	<i>Vatakaphahara, Rasayana, Deepan, Ruchya, Vrishya, Tridoshhara</i>
9	<i>Rasna</i>	<i>Rasya, Surasa, Utkarsa, Gandhanakuli, Elaparni, Rasni, Atirasa</i>	<i>Tikta</i>	<i>Guru</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kaphvatahar, Aampachan</i>
10	<i>Vacha</i>	<i>Shadgrantha, Uragandha, Golomi, Shatparvika, Kshudrapatra, Lomasha, Bhadra, Rakshaghi</i>	<i>Tikta, Katu</i>	<i>Laghu, Tikshna, Sara</i>	<i>Ushna</i>	<i>Katu</i>	<i>Vatahna, Kaphaghna</i>
11	<i>Maricha</i>	<i>Palita, Shyam, Kol, Yavneshtha, Vrittaphala, Katuka, Krishna, Vrittphala</i>	<i>Katu</i>	<i>Laghu, Tikshna</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Vatanashaka, Kaphashamak, Pittavardha</i>
12	<i>Arushkara</i>	<i>Bhallataka, Agnimukh, Anala, Krimighna, Bhallata</i>	<i>Madhura, Kashaya</i>	<i>Laghu, Tikshna, Ushna, Snigdha</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Kaphashamaka</i>
13	<i>Ativisha</i>	<i>Shuklakanda, Shishubhaishajya, Virupa, Shruni, Shwetvacha,</i>	<i>Tikta, Katu</i>	<i>Laghu, Ruksha</i>	<i>Ushna</i>	<i>Katu</i>	<i>Deepan, Pachan, Sangrahi, Kaphapittahara</i>
14	<i>Manjishtha</i>	<i>Harini, Rakta, Gauri, Rohini, Vijaya, Manjusha, Jvarhantri, Rasayana, Tamramoola</i>	<i>Kashaya, Tikta, Madhura</i>	<i>Guru, Ruksha</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kaphaghna, Pittashamaka</i>
15	<i>Patha</i>	<i>Ambastha, Shreyasi, Varatiktala, Tiktapushpa, Ateesarnashani, Ekashteela</i>	<i>Tikta, Katu</i>	<i>Laghu, Tikshna</i>	<i>Ushna</i>	<i>Katu</i>	<i>Bhagnasandhankrita, Grahi, Tridoshashamak, Raktashodhaka</i>
16	<i>Yavani</i>	<i>Deepakhya, Agnigandha, Teevragandha, Ugra, Hridya, Agnivardha, Vatari, Shoolhantri</i>	<i>Katu, Tikta</i>	<i>Laghu, Ruksha, Tikshna</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kaphavatanashaka, Pittavardhaka</i>
17	<i>Gajpippali</i>	<i>Magadhi, Krishna, Vaidehi, Chapala, Kana, Ushna, Upkulya, Katubija</i>	<i>Katu</i>	<i>Ruksha</i>	<i>Ushna</i>	<i>Katu</i>	<i>Deepana, Vatahara, Kaphahara</i>
18	<i>Kushtha</i>	<i>Yapya, Brahmteertha, Shwasari, Pushkarasya,</i>	<i>Tikta, Katu, Madhura</i>	<i>Laghu, Ruksha, Tikshna</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kaphahara</i>

<i>Shoolahara, Puny ateertha</i>							
19	<i>Tejovati</i>	<i>Tejaswini, Tejovha</i>	<i>Katu Tikta</i>	<i>Laghu Ruksha Tikshna</i>	<i>Ushna</i>	<i>Katu</i>	<i>Vatakaphashamaka Pittavardhaka</i>
20	<i>Kutaja</i>	<i>Shakra, Vatsaka, Pravishya, Kalinga, Varatika, Yavaphala, Shatrubhuruha</i>	<i>Tikta Kashaya</i>	<i>Ruksha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kaphapittashamaka</i>
21	<i>Surdaru</i>	<i>Snigdhadaru, Daru, Devadaru, Bhootahari, Sambhava, Surahva</i>	<i>Tikta</i>	<i>Laghu</i>	<i>Ushna</i>	<i>Katu</i>	<i>Tridoshahar</i>
22	<i>Laksha</i>	<i>Alakta, Amogha, Deeptahva, Krimidravya, Vishwasharada</i>	<i>Laghu Snigdha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kaphash amak Vatasha maka</i>	
23	<i>Asthisumhrta</i>	<i>Asthisanharak, Vajradanti, Vajri, Granthiman, Krashtughantika</i>	<i>Katu Kshaya Madhura</i>	<i>Laghu Snigdha Sara Picchila</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Balya Kaphahara Sandhaniya Stambhana Vatahara</i>
24	<i>Arjuna</i>	<i>Dhawal, Kukubha, Indradu, Virvriksha, Nadisrja</i>	<i>Kashaya</i>	<i>Laghu Ruksha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Hridya Kshayhara Medohara</i>
25	<i>Ashwagandha</i>	<i>Vajnam, Vajini, Balada, Balya, Pushtida, Hayahya, Vrisha, Ganghanta</i>	<i>Tikta, Kashaya</i>	<i>Laghu</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Vatakaphapaha, Balya, Rasayana, Vajikarana</i>
26	<i>Nagbala</i>	<i>Mahabala, Khargandha, Mahoday, Chatuhfala, Arishtha, Gangeruki</i>	<i>Madhura Kashaya</i>	<i>Guru Snigdha Picchila</i>	<i>Sheeta</i>	<i>Madhura</i>	<i>Vatapittashamaka</i>
27	<i>Guggulu</i>	<i>Mahishaksha, Deodhoop, Palankash, Kashi, Kumbha, Deveshtha, Rakshouha</i>	<i>Tikta Katu Kashaya</i>	<i>Laghu, Sara, Vishada</i>	<i>Ushna</i>	<i>Katu</i>	<i>Rasayana, Balya, Bhagnasandhankrita, Medohar</i>
28	<i>Goghrta</i>		<i>Madhura</i>	<i>Guru Snigdha Madhura</i>	<i>Seeta</i>	<i>Madhura</i>	<i>Agnidipana Shukravardhak Tejobalakar Vayasthapana Medhya Ayushya Rasayana Balya</i>

DISCUSSION

In old age, all *Dhatus* undergo *Kshaya* (degeneration), Thus leading to *Vataprakopa* and

making *Sandhigata Vata* (Osteoarthritis). *Sandhigata vata* is *Madhyama Roga Margagata Vatika* disorders in which vitiated *Vata* gets

lodged in *Sandhi*. Hence to treat *Sandhigata Vata* drugs acting on both *Vata* and *Asthi* should be selected. According to *Charaka*, *Tikta Dravya*, *Ghrita* and *Kshir* should be used in the treatment of *Asthi Dhatu Dushti*³⁸.

Probable mode of action of *Panchtikta Guggulu*

Ghrita:

Most of the ingredients used in preparing *Panchatikta Guggulu Ghrita* have *Tikta Rasa*, *Ushna Virya*, *Madhura – Katu Vipaka* and *Snigdha Guna*. Due to *Tikta Rasa* it will remove obstruction in flow of nutrients in the body channels due to predominance of *Akasha Mahabhuta*. *Katu Vipaka* and *Ushna Virya* of ingredients will promote the *Dhatvagni* (Metabolic functions). *Madhura Vipaka* and *Snigdha Guna* of the medicine will provide nutrition of all the *Dhatu*s including *Asthi* and *Majja Dhatu* which will stabilize *AsthiDhatu*, *Majja Dhatu* and ultimately compensate the *Asthi Dhatu* and *Majja Dhatu Kshaya*. In this way it will not only prevent the further degeneration of joint but will promote the healing damaged tissue in the joint.

Tikta Rasa has got *Deepana*, *Pachana* and *Rochana* properties. So it helps in the improvement of the general condition of health and thus strengthens the whole body as well as joints. *Tikta Rasa* possess *Lekhana* property also³⁹, therefore it helps in the weight reduction of the patients and reducing physical stress on weight bearing joints and thus helping in the management of Osteoarthritis.

Ghrita is *Vata-pitta shamaka*, *Balya*, *Agnivardhaka*, *Snigdha*, *Madhura*, *Saumya*, *Sheeta Virya*, *Shulahara*, *Jwarahara*, *Vrishya* and *Vayahsthapaka*⁴⁰. Thus, it pacifies *Vata*, improves the general condition of the body and acts as a rejuvenator of the body. *Ghrita* also contains vitamin D and facilitate the absorption of fat soluble vitamins including vitamin D which plays an important role to utilize calcium and phosphorous in blood and bone building⁴¹ thus prevent further degeneration of tissues in joints and promote faster healing of damaged tissues of joints. *Ghee* is rich in Antioxidants including Vitamin A, Vitamin E and carotenoids which may be helpful in preventing lipid peroxidation⁴².

Guggulu (*Commiphora mukul*)- It is well known for its *Vata* pacifying, anti-inflammatory and *Lekhana* effect. Due to its *Ruksha*, *Tikshan* and *Vishada Guna* it acts as a *Medohara*. According to *Sushruta*, *Purana Guggulu* has got *Apakarshan* property⁴³, which helps in removing the obstruction in flow of *Rasa* and *Rakta Dhatu* by cleaning the body channels thus facilitate proper supply of oxygen and nutrition to the affected joint and removal of endogenous waste products from the joint area. *Guggulu* enhances the efficacy of this medicine by its anti-inflammatory and *Srotoshodhaka* property.

CONCLUSION

- *Sandhigata vata* can be correlated with Osteoarthritis(OA) on the basis of their clinical manifestation, as described in modern medical science.

- *Panchtikta Guggulu Ghrita* can be effective in treatment of *Sandhigata vata*.

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