ABSTRACT

Sandhigata Vata is the commonest form of articular disorder. It is a type of Vatavyadhi which mainly occurs in Vriddhavastha due to Dhatukshaya, which limits everyday activities such as walking, dressing, bathing etc thus making patient disabled or handicapped. It being a Vatavyadhi located in Marmasthasandhi and its occurrence in old age makes it Kashtasadhya. Vata Dosha plays main role in the janusandhigata vata disease. Shula Pradhan Vedana is the cardinal feature of the disease associated with Sandhishotha with Vata Purna Druti Sparsha, lack of movements of the joints or painful movement of the joints. In this study total 60 patients having the complaints of Osteoarthritis were randomly divided into 2 groups. In Group A, patients were treated with Chinchadi taila janubasti and in group B patients were treated with Rasona taila. The data shows that Rasona taila i.e. group B has provided better relief in the disease Sandhigata Vata.

Key words: Sandhigata vata, Osteoarthritis, Chinchadi Taila, Rasona Taila.

INTRODUCTION

In Vriddhavastha, all Dhatus undergo Kshaya, thus leading to Vataprapkopa and making individual prone to many diseases. Among them Sandhigata Vata stands top in the list. The incidence of osteoarthritis in India is as high as 12%. It is estimated that approximately four out of 100 people are affected by it. Osteoarthritis is the most common articular disorder begins asymptotically in the 2nd & 3rd decades and is extremely common by age 70. Almost all persons by age 40 have some pathologic change in weight bearing joint.

Sandhigata vata is one such disorder where in these locomotive functions are affected. Sandhigata vata is described as one of the main vata vyadhis in Ayurveda. As the name suggests the Sandhi or joints( the Shleshaka Kapha Sthana) are specifically affected by the Prakupita Vata (Vyana), which leads to
Clinical features like Vata Poorna Druti Sparsha, Shopha, Prasaaranakunchayoho Vedana, Sandhi Atopa, Sandhi Graha

According to World Health Organisation (WHO), Osteoarthritis is the second largest and commonest musculoskeletal problem in the world population, global prevalence of knee OA was 16 % in individual aged 15 and over, and was 22.9% in individual aged over 40. The pooled global incidence of knee OA was 203 per 10,000 person-years (95% CI, 106-331) in individuals aged 20 and over. Correspondingly, there are around annual 86.7 (95% CI, 45.3-141.3) million individuals (20 years and older) with incident knee OA in 2020 worldwide.

Janu Basti imparts Snehana & Svedana and opens up the Srotas in the Shareera facilitating more nourishment and free movement of Vata Dosha. This results in the relief of Stambha and facilitates free movement of the Sandhis. All the drugs in the Chinchadi taila and Rasona taila have Shoolahara, Vata Doshahara, Srotoshodhaka and Balya properties. Taking the above points into consideration it is an ideal treatment of choice in Sandhigatavata.

AIMS AND OBJECTIVES

1. To study Sandhigata Vata in detail.
2. To study Osteoarthritis in detail.
3. To evaluate efficacy of Chinchadi Taila Janu basti in the management of Janu Sandhigata Vata.
4. To evaluate the efficacy of Rasona Taila Janu Basti in the management of Janu Sandhigata Vata.
5. To compare the efficacy of both Chinchadi Taila and Rasona Taila Janu Basti in the management of Osteoarthritis of knee joint.
6. To assess the efficacy of Janu Basti on the Dushti Lakshanas of Dosha, Dushya and Srotas.

MATERIAL & METHODS

Patients, suffering from Osteoarthritis, were selected from O.P.D. and I.P.D. of Ayurveda mahavidyalaya hubli.

Inclusion criteria

1. Subjects with classical features of Janu Sandhigata Vata.
2. Subjects of either sex and age group between 40-80 yrs.

Exclusion criteria

1. Subjects with any congenital bony deformity.
2. Subjects below 40 and above 80 years of age.
3. Subjects of Amavata / Vatarakta, Janu Sandhigata Vata due to Abhigata.
4. Janu Sandhigata Vata secondary to endocrine dysfunction, septic arthritis etc.
Grouping-

Group A: chinchadi taila janu basti

- *Shunthi Choorna* for Amapachana.
- *Masha* was used for the preparation of *Masha Kalka Pishti*
- *Chinchadi Taila* was used for *Janu Basti*. For 7 days.

Group B: Rasona taila janu basti

- *Shunthi Choorna* for Amapachana.
- *Masha* was used for the preparation of *Masha Kalka Pishti*.
- *Rasona Taila* was used for *Janu Basti*. For 7 days.

**OBSERVATIONS**

Total 60 patients were registered (group A 30 & group B 30 ), Status wise distribution of 60 patients of sandhigata vata . In this study 80 % subjects were found in from 40 to 50 years from the Age group, 93.33 % were Females, 95% were Hindus, 100 % were married, 91.66% were educated, 76.66% were House wife, 80 % belonged to middle class, 95% were from urban area.

50% subjects were consuming vegetarian food and 50% were consuming Mixed (veg & non veg) food. 40% had Vishamagni, 41.66% had analysed Madhyama Koshta, 85% had Tea addiction, 48.33% were with Vata Pitta prakruti, 30% Pitta Kaphaja Prakruti and 13 subjects 21.66% subjects were of Vata Kaphaja prakrut , 41 subjects 68.33% had Madhyama Sara, 66.6% had Madhyama Samhanana.

63.33% had Madhyama praman , 80% were of Madhyama Satwa , 81.66% had Madhyama Satmya, 75% had Madhyama Vyayamashakti, 75% had Madhyama Deha Bala, 43.33% were having Chinta, 45% had a chronicity of 1 yr to 2yr , 98.33% reported with Prasaaranah akunchanayoh vedana and 56.66% with Sandhigraha, 96.66% with Sandhi atopa ,76.66% with Sandhi gati asamarthya, 20% were reported with Sandhishopha and 13.33% with Sparshaasahishnuta, 63.33% were not having any family history , 78.33% presented with a limping gait and the other 21.66% had a normal gait,

Sheeta shaman was seen in 60 subjects( 100%), Shoola shaman was seen in 57 (95% )Subjects, Gaurava nigraha was seen in 56 (93.33%) Subjects, Stambha nigraha was seen in 52 (86.66 %)Subjects , Mardavata was seen in 16 (26.66% ) Subjects and Vyadhi haani were seen in 60 (100%) subjects.
### Results-

Table no.01 Statistical analysis table of Group A for BT and AT

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Sum of the ranks</th>
<th>Mean of the ranks</th>
<th>MD</th>
<th>SD</th>
<th>Z value</th>
<th>P value</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandhi shola</td>
<td>465</td>
<td>232.5</td>
<td>1.4</td>
<td>48.62</td>
<td>4.78</td>
<td>&lt;0.0000</td>
<td>H.S</td>
</tr>
<tr>
<td>Sandhi graha</td>
<td>91</td>
<td>45.5</td>
<td>1.62</td>
<td>14.31</td>
<td>3.17</td>
<td>0.0014</td>
<td>S</td>
</tr>
<tr>
<td>Sandhi shotha</td>
<td>190</td>
<td>95</td>
<td>0.26</td>
<td>24.85</td>
<td>3.82</td>
<td>0.00014</td>
<td>S</td>
</tr>
<tr>
<td>Sandhi atopa</td>
<td>210</td>
<td>105</td>
<td>0.8</td>
<td>26.79</td>
<td>3.91</td>
<td>0.00008</td>
<td>H.S</td>
</tr>
<tr>
<td>Sandhigatiasamarthaha</td>
<td>325</td>
<td>162.5</td>
<td>1.8</td>
<td>37.17</td>
<td>4.37</td>
<td>&lt;0.0000</td>
<td>H.S</td>
</tr>
<tr>
<td>Spaarsha asahishnuta</td>
<td>325</td>
<td>162.5</td>
<td>0.56</td>
<td>37.17</td>
<td>4.37</td>
<td>&lt;0.0000</td>
<td>H.S</td>
</tr>
<tr>
<td>Walking time require to</td>
<td>435</td>
<td>217.5</td>
<td>1.59</td>
<td>46.25</td>
<td>4.70</td>
<td>&lt;0.0000</td>
<td>H.S</td>
</tr>
<tr>
<td>cover distance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Womac</td>
<td>378</td>
<td>189</td>
<td>0.22</td>
<td>41.62</td>
<td>4.54</td>
<td>&lt;0.0000</td>
<td>H.S</td>
</tr>
</tbody>
</table>

Table no.02 Statistical analysis table of Group B for BT and AT

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Sum of the ranks</th>
<th>Mean of the ranks</th>
<th>MD</th>
<th>SD</th>
<th>Z value</th>
<th>P value</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandhi shola</td>
<td>465</td>
<td>232.5</td>
<td>2.33</td>
<td>48.62</td>
<td>4.78</td>
<td>&lt;0.0000</td>
<td>H.S</td>
</tr>
<tr>
<td>Sandhi graha</td>
<td>195.5</td>
<td>105</td>
<td>2.15</td>
<td>26.79</td>
<td>3.37</td>
<td>0.0007</td>
<td>S</td>
</tr>
<tr>
<td>Sandhi shotha</td>
<td>231</td>
<td>115.5</td>
<td>1.71</td>
<td>28.77</td>
<td>4.01</td>
<td>&lt;0.0000</td>
<td>H.S</td>
</tr>
<tr>
<td>Sandhi atopa</td>
<td>210</td>
<td>105</td>
<td>2.15</td>
<td>26.79</td>
<td>3.91</td>
<td>0.00008</td>
<td>H.S</td>
</tr>
<tr>
<td>Sandhigatiasamarthaha</td>
<td>300</td>
<td>150</td>
<td>2.04</td>
<td>35</td>
<td>4.28</td>
<td>&lt;0.0000</td>
<td>H.S</td>
</tr>
<tr>
<td>Spaarsha asahishnuta</td>
<td>183</td>
<td>95</td>
<td>1.47</td>
<td>24.85</td>
<td>3.54</td>
<td>0.0004</td>
<td>S</td>
</tr>
<tr>
<td>Walking time require to</td>
<td>465</td>
<td>232.5</td>
<td>2.33</td>
<td>48.62</td>
<td>4.78</td>
<td>&lt;0.0000</td>
<td>H.S</td>
</tr>
<tr>
<td>cover distance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Womac</td>
<td>378</td>
<td>189</td>
<td>1.96</td>
<td>41.62</td>
<td>4.54</td>
<td>&lt;0.0000</td>
<td>H.S</td>
</tr>
</tbody>
</table>
Table no.03 Statistical analysis table between Group A and Group B for BT and AT

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Sum of the ranks</th>
<th>Mean of the ranks</th>
<th>SD</th>
<th>Z value</th>
<th>P value</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandhi shola</td>
<td>1830</td>
<td>30.5</td>
<td>67.63</td>
<td>265</td>
<td>2.72</td>
<td>0.0063</td>
</tr>
<tr>
<td>Sandhi graha</td>
<td>1891</td>
<td>31</td>
<td>69.31</td>
<td>189.5</td>
<td>3.96</td>
<td>0.00008</td>
</tr>
<tr>
<td>Sandhi shotha</td>
<td>1830</td>
<td>30.5</td>
<td>67.63</td>
<td>352</td>
<td>1.44</td>
<td>0.14</td>
</tr>
<tr>
<td>Sandhi atopa</td>
<td>1830</td>
<td>30.5</td>
<td>67.63</td>
<td>371</td>
<td>1.16</td>
<td>0.24</td>
</tr>
<tr>
<td>Sandhigatiasamarthat ha</td>
<td>1830</td>
<td>30.5</td>
<td>67.63</td>
<td>349.5</td>
<td>1.47</td>
<td>0.13</td>
</tr>
<tr>
<td>Spaarsha asahishnuta</td>
<td>1830</td>
<td>30.5</td>
<td>67.63</td>
<td>309</td>
<td>2.07</td>
<td>0.037</td>
</tr>
<tr>
<td>Walking time require to cover distance</td>
<td>1891</td>
<td>31</td>
<td>69.31</td>
<td>282</td>
<td>2.63</td>
<td>0.0085</td>
</tr>
<tr>
<td>Womac</td>
<td>1830</td>
<td>30.5</td>
<td>67.63</td>
<td>298</td>
<td>2.23</td>
<td>0.025</td>
</tr>
</tbody>
</table>

Table no.04 Showing the Overall assessment of therapy in both Group A and Group B (In percentage)

<table>
<thead>
<tr>
<th>Remarks</th>
<th>Group A</th>
<th>%</th>
<th>Group B</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marked relief (above 75%)</td>
<td>5</td>
<td>16.66%</td>
<td>28</td>
<td>93.33%</td>
</tr>
<tr>
<td>Moderate relief (50% - 75%)</td>
<td>17</td>
<td>56.66%</td>
<td>2</td>
<td>6.66%</td>
</tr>
<tr>
<td>Mild relief (25% - 50%)</td>
<td>8</td>
<td>26.66%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>No relief (below 25%)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

The above mentioned data shows *janubasti* with *chinchadi taila* in group A and *janubasti* with *Rasona taila* in group B. That is Group B showed better results in all the parameters compared to Group A. So *Rasona Taila* has much contributary effect in *Janu Sandhigata Vata* even though *Chinchadi Taila* also has a significant role in *Janu Sandhigata Vata*. 
DISCUSSION-

48 subjects (80%) were from Age group 40 to 50 years while 12 subjects (20%) were from the Age group 51 to 60 years. As a result of Vardhakya, Dhatu kshaya occurs which results in Degenerative changes. 56 subjects (93.33%) were Females and This shows the higher incidence of osteoarthritis in females as compared to males. In females Menopause is one of the risk factors for Osteoarthritis, because of estrogen hormone deficiency.

46 (76.66%) subjects were House wife due to lack of time, work nature and increased physical activity (prolonged standing) of house wives & also due to negligence towards self-care and health routine check-ups, they end up with bone degeneration. 57 subjects (95%) were from urban area. The higher incidence of Janu sandhigata vata in urban population may be because of the nature of work, food habits and mental stress etc. Urban population leads a sedentary lifestyle. The modernized form of food which is so called junk food contains fewer nutrients. Apart from this Mental stress due to ultra-urbanization also plays a role in the higher incidence of Janu sandhigata vata in urban population.

30 subjects (50%) were consuming Mixed (veg & non veg) food. Generally more of Non vegetarian food produces Agnimandhya and paves way for diseases. Out of 60 subjects, maximum number of 35 subjects (58.33%) was consuming Madhura Rasa Ahara, As Sthoulya janita Sandhigata vata is a result of Avarana janya vata vrudhdi, for which Madhura, Amla rasa pradhana ahara are precipitating factors among others, while the remaining Ahara rasas are responsible for Vata vrudhdi resulting in Dhatu kshaya, hence the result in this group.

As Snigdha and Guru ahara are difficult to digest along with sedentary lifestyle of present era leading to Mandagni which further develops into avarna janita Vata vyadhi and Rooksha, Laghu, Sheeta Guna cause Vata kopa and results in Vata Vyadhi.

24 (40%) had Vishamagni, In the present study almost all the subjects were having Vata pradhana prakriti along With pitta or kapha. Mandagni is the stage of agni which is because of kapha dosha. As said earlier the upachayakarakara (anabolic) dhatwagnis are governed by the jatharagni. Hence when there is Vishamata or mandyata of the Jatharagni, simultaneously there will be Vishamata or Mandyata of the upachayakarakara (anabolic) Asthi dhatwagni, leading to the improper transformation of the Poshaka Asthi dhatu into the poshya or sthayi Asthi dhatu finally resulting in Janu sandhigata vata.

25 (41.66%) subjects had analysed Madhyama Koshta, Since almost all the patients in the present study had Vata-Pitta pradhana Prakriti most of the patients had Madhyama koshtha. And the Koshta also depends upon the type of Ahara the patients consumed. 34 (56.66%) subjects reported with disturbed sleep, the number was was high in the disturbed sleep group. This is because of vata prakopa. Nidra bramsha and dinata are also the laxanas of vata vrudhdi and modern science says that insomnia is one of the symptoms of Osteoarthritis. 29 subjects (48.33%) were with Vata Pitta prakriti, 18 subjects (30%)Pitta Kaphaja Prakruti and 13 subjects (21.66%) subjects were of Vata Kaphaja prakriti This analysis of prakriti shows that most of the subjects were with Vata pradhana prakriti and vata is the predominant dosha in the old age. As explained in the nidana aspect because of inverse proportional law of Asthi and Vata (Ashrayiashrayi bhava) the incidence of Asthikshaya is more in the persons with Vata dominant Prakriti.

probable mode of action

Sandhigata Vata is Madhyama Roja 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
Figure No.3 Schematic representation of Janubasti with Chinchadi Taila

Janubasti with Chinchadi Taila

- Amla rasa
- Amla, Katu vipaka
- Snigdha
- Vatahara
- Ushna veerya
- Kaphagna
- Bhrumhana
- Shoolahara
- Shophahara
- Dhatukshaya reduced

Upashaya prapti in janu sandhigata vata lakshanas

Break the kaphanubandha
Removes Srotovarodha

Amla rasa and Katu vipaka
Snigdha
Vatahara
Ushna veerya
Kaphagna
Bhrumhana
Shoolahara
Shophahara
Dhatukshaya reduced

Upashaya prapti in janu sandhigata vata lakshanas
CONCLUSION

Sandhigata Vata is one of the Vata Vikara & it is Yapya Vyadhi. On comparison between the two groups Tailas it showed that Janubasti with Rasona taila provided a better relief in the signs and symptoms of Janu sandhigata vata mainly in shoola, sandhi graha, sparsha asahishnuta, sandhi shotha, sandhi atopa, gait and range of movements clinically compared to Chinchadi taila. Rasona taila being a shoolahara, shotahara, sandhanakara and balakara along with Vata hara property.

The Chinchadi taila possesses amla, katu, tikta, kashya rasa and being katu vipaka would have given better results in kaphanubandhi sandhigata vata than kevala vata anubandhi janu sandhigata vata. Hence on comparison between two groups, group B with Rasona taila has given better result than Group A with Chinchadi taila in Janu Sandhigata vata.
References


