A CLINICAL TRIAL OF SHWADANSHTRADI YOGA IN THE MANAGEMENT OF SANDHIGATA VATA WITH SPECIAL REFERENCE TO OSTEOARTHRITIS.

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1. INTRODUCTION

Imbalance of Dosha is termed as Roga. Among Tridosha, Vata is responsible for almost all diseases. Sandhigatvata is described under Vatvyadhi. In Vriddhavastha (old age) all dhatus undergo Kshaya (degenerative changes) leading to Vataparakopa and making individual prone to many diseases. Among them Sandhigatvata stands top in the list. Acharya Charaka was the first person who described the disease separately as Sandhigata Aniala but not included Vyadhi in Nanatmajavikara. Acharya Vagbhata has also considered Vatvyadhi as a Maharoga. Till date the disease is challenging and one of the common causes of disability in industrial countries. Involvement of Madhyam rogamarga, Vaidosha, and Dhatukshaya figure disease Kricchrasadhya (difficult to treat). Each Vatvyadhi and Sandhigatavata also, is of two types depending upon its pathogenesis (type of samprapti) viz. Strotorodhajanya and Dhatukshayajanya.

Osteoarthritis is a degenerative joint disease. Pain, Inflammation, deformities occur equally in male and female. After 55yrs the evidence is higher in females as compared to males. The prevalence of osteoarthritis is increasing due to population aging and increasing in related factors such as obesity, sedentary life style. Osteoarthritis primarily affects elderly
population. It is a major cause of disabilities in older adults. Due to OA there are limitations on movements and patient cannot perform their major daily activities. Now a day the disease can be seen irrespective of age due to Vatakara aahaara-vihara and negligence of Ritucharya and Dincharya. Its prevalence is hence found increasing in earlier aged population also.

In context of Samanya chikitsa of Vatavayadhī and chikitsa of Sandhigatavata; Abhyanga, Snēhana, Swedan, Basti, Sneha Virechana, Snigdha-Amla-Lawman-Madhura rasatmaka drugs, Agnikarma, Bandhan, Unmardan etc. chikitsa upkramas are advised in Brihat trayee.4-6 Sharangadharā had told Vrishiya yoga are also useful for Vata shamana because of Madhura ras-vipaka, Shīta virya, Guru-snigdha gunas. Shwadanshtradi yoga which is Vrushya, Shīra, Vikara shanktara, Saptadhatu vardhaka, Rasayan. Previous studies also stressed that Brihan chikitsa is useful in Dhatukshaya avastha and Nirama avastha of Sandhigata Vata.7,8 Hence being Vrishiya, Vatashamaka, Brihan and Dhatuvardhaka, Shwadanshtradi yoga was selected for present study as Shaman Chikitsa in Sandhigata Vata patients.

2. MATERIALS AND METHODS

2.1. Objective

To study the efficacy of Shwadanshtradi Yoga in the management of Sandhigatavata.

2.2. Hypothesis

In Sandhigativa while considering Vata vruddhi due to Kapha, Pitta, Dhatukshaya, Shwadanshtradi yoga is Saptadhatu vardhaka, Rasayana and Vatashamaka.

2.3. Study design

For the comparative clinical study 60 patients in the dept of Kayachikitsa in CSMSS Ayurveda College and Rugnalaya were included. Two groups containing 30 patients were made randomly and named as Trial group and Control Group. Shwadanshtradi Yog 5 gm, twice a day was given to Trial group patients and Pan-

chatikaghrita Guggula 250, twice a day was given to Control group patients. Each treatment was administered for 30 days with follow ups at every 10th day. IEC of CSMSS Ayurveda College, granted ethical clearance. Nature of study was explained to every participating patient before taking written consent from them. Patients were instructed about medicine and Pathya-apathy related for Sandhigatavata and follow up schedule. Case Record form containing basic information, history and assessment criteria details were used to record data.

2.4. Selection of study subjects

Inclusion Criteria

- Patients of age 40 to 70 years irrespective of sex, occupation and economic status were included.
- Patients presenting classical signs and symptoms of Sandhigatavata (as per Acharya Charaka)10 were included.

Exclusion Criteria

- Age group below 40 and above 70 years.
- All patients with joint pain other than osteoarthritis11 were excluded.
- Traumatic conditions.

2.5. Criteria of assessment

Subjective criteria

- Sandhishula (joint pain)
- Sandhishotha (joint swelling)
- Vatpurna drutisparsha (crepitations)
- Prasaran- aakunchana pravrutti savedana

Objective criteria

- HB%
- Serum calcium before

Criteria for assessment of results

Assessment criteria were graded for assessment of results. Gradation of criteria is shown in Table No. 1.

Overall assessment criteria

Overall assessment criteria are shown in Table No. 2.

2.6. Drug Review
Shwadanshtradi Yoga contains Shwadanshtra12 (Tribulus Terrestris), Guduchi13 (Tenospora Cordifolia), Amalaki14 (Emblica Officinalis), Ghrita15 (Cow ghee) and Madhu16 (honey). Proportion of ingredients of Shwadanshtradi Yoga8 was as – Shwadanshtra: 1 part, Guduchi: 1 part, Amalaki: 1 part, Ghrita and Madhu as per requirement but both in different quantity.

After that pharmaceutical study was done in which the drug preparation and drug standardization was done. After that clinical study was carried out.

**Group A (Trial Group):**

*Shwadanshtradi Yoga churna* (equal proportion of each ingredient) 5gm with anupana Madhu and Ghrita (unequal quantity) was administered at Vyana-udana kaala (Adhobhakta kala17 or after meal) for 30 days. Patients were followed up at 10th, 20th and 30th day.

**Group B (Control Group):**

*Panchatiktaghrita Guggulu Vati*18 250 md with anupana Kosha jala was administered at Vyana-udana kaala (Adhobhakta kala17 or after meal) for 30 days. Patients were followed up at 10th, 20th and 30th day.

### 3. RESULTS AND DISCUSSION

#### Trial Group (Group A)

The total effect of therapy is evaluated by calculating relief in the form of percentage of each patient. Out of thirty patients, good improvement was seen in 7 patients i.e. 23.33%. Moderate improvement was seen 26 patients i.e.76.67%. Mild improvement was seen in 0 patients i.e. 0%. Every patient has got relief as explained in the above improvement group. Nobody was found in unchanged or no improvement group. Effect of therapy was also calculated according to relief in symptom score. Relief in Sandhishula was 67%, Relief in Sandhishotha was 62.7%, Relief in Vatpurna druti sparsha was 67.12% and Relief in Prasaran and akunchan pravrutti savedana was 62.9%.

#### Control Group (Group B)

The total effect of therapy is evaluated by calculating relief in the form of percentage of each patient. Out of thirty patients, good improvement was seen in 0 patients i.e. 0%. Moderate improvement was seen 27 patients i.e. 90%. Mild improvement was seen in 3 patients i.e. 10%. Every patient has got relief as explained in the above improvement group. Nobody was found in unchanged or no improvement group. Effect of therapy was also calculated according to relief in symptom score. Relief in Sandhishula was 56.52%, Relief in Sandhishotha was 57.14%, Relief in Vatpurna druti sparsha was 61.11% and Relief in Prasaran and akunchan pravrutti savedana was 61.76%.

#### Statistical Analysis

The changes in parameter before and after the treatment were compared by applying Student’s unpaired t test. It has shown significant difference between effect of two treatments. Effect on parameters was significantly more in Trial Group as compared to effect in Control Group, value of P was observed less than 0.05 at 5% level of significance in case of every parameter i.e. Sadhisula, Sandhisotha, Vatpurna druti sparsha and Prasaran-akunchan savedana. Hence it is concluded that Shwadanshtradi Yoga is significantly effective that Panchatiktaghrita Guggulu to reduce Sadhisula, Sandhisotha, Vatpurna druti sparsha and Prasaran-akunchan savedana in Sandhigata Vata.

#### Mode of action

**Shwadanshtra** (Gokshura) is Madhura rasa-vipaki, Sheet, Snigdh, Guru, Vata-Pitta Shamaka. Its fruit contains alkaloid, volatile oil and tannin. Its seed contains alkaloid namely harmine and some saponine. It is Vrishya, Mural, Balya and Pushtikara. It is powerful nonirritant anti-inflammatory, analgesic, antioxidant drug and best for Vataroga.12 Guduchi is Tikta, Katu, Ushna. It is Vedana shapana, Rasayans, Balya, Deepana, Pachana, Grahi, Kushthaghna and Tridoshaghna. It contains barberine, glucosideS viz. Giloin, Gilenin. A non-glycoside, Volatile oil, fat, tenosporin, columbine and...
Gilosterol are found in stem. Leaves contain beta-sisisterol and octakesanol starch.\(^{13}\) Amalaki is Lavana varjit parnashatamka, Shita, Madhura vipaki and Snigdha. It is Tridoshahara, Rasayana, Virshya, Chakshushya, Vatamolamaka, Sapta dhatu vardhaka. It is a good source of vitamin C, carotene, nicotinic acid, riboflavin and D-glucose. It is immunomodulator, antioxidant, antiemetic and antidiabetic.\(^{14}\) Ghrita is Madhura rastmaka, Madhur vipaki, Shita, Snigdha, Kapha vardhak, Vata-Pitta shamaka. It is Sanskaranuvarti, Agni vardhaka, Vata nashaka, Rasayana, Netrahitkara, Medhya, Smruti vardhaka, Balya. It is indicated in Unmad, Kshaya, Udavarta, Anaah, Rakta vikara and Vata Vikara.\(^{15}\) Madhu is Madhura, Kashaya, Katu, Ushna, Guru, Sukshma, Kapha-Pitta shamaka, Lekhaniya, Balya, Vranaropaka.

4. CONCLUSION

- **Shwadanshtradi Yoga** was found clinically significant than Panchtiktakaghrita Guggulu.
- All parameters viz. Sadhishula, Sandhishotha, Vatpurna druti sparsha, Prasaran-akunchan savedana; were significantly reduced by Shwadanshtradi Yoga as compared to Panchtiktakaghrita Guggulu.
- **Shwadanshtradi Yoga** is Katu rasa-vipaki and Ushna virya, due to which Vatashama occurs. It is more useful in Saam avastha.
- **Shwadanshtradi Yoga** acts as Vedana sthapana, Shothhara, Balya and Rasayana.

5. REFERENCES

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6. TABLES

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<th>Description</th>
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<td>Sandhishotha</td>
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Table No. 1. Assessment of results

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<th>Reduction of symptoms grading scores above 50% up to 75% of initial score</th>
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Table No. 2. Overall assessment criteria

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