

A CLINICAL STUDY OF ADITYAPAKA GUGGULU, BALASHAIREEY TAILA AND SHATPUSHPAADI LEPA IN THE MANAGEMENT OF SANDHIGATAVATA/OSTEOARTHRITIS***¹Dr. Rameshwari, ²Dr. Aruna Ojha, ³Dr. Jeevan Lal Sahu**¹P. G. Scholar, ²Associate professor, ³Lecturer
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ABSTRACT

Sandhigataavata is a type of *vata vyadhi*. It is the commonest form of articular disorder, which having similar symptoms as that of Osteoarthritis. In this disease patient's routine work get limited. According to *Ayurveda* this disease mainly occurs in *vridhnavastha* due to *Dhatukshaya* and other *vata prakopaka nidan*. Main symptoms of this disease are *shula, sotha, vata poornadriti sparsha* and difficulty in flexion and extension of the *sandhi*. In this study total 60 patients having the complaints of *Sandhigataavata* were randomly divided into 2 groups. In Group A patients were treated with *Adityapaka Guggulu* along with *Balashaireey Taila* and Group B patients were treated with *Adityapaka Guggulu* along with *Shatpushpaadi Lepa*. The data shows that satisfactory results were obtained in both groups but the study showed Group A- *Adityapaka Guggulu* and *Balashaireey Taila* (for external application) treatment as highly effective in *Sandhigataavata*.

KEYWORDS: *Sandhigataavata, Adityapaka Guggulu, Balashaireey Taila, Shatpushpaadi Lepa.***INTRODUCTION**

Sandhigataavata is one of the *Vata vyadhi*. *Acharya Charak* has described the disease by the name *Sandhigata Anila*. He was the first one who described this disease separately under the chapter of *vata vyadhi* but he has not included this disease in 80 types of *Nanatmaja Vatavyadhi*. The disease *Sandhigata vata* can be defined as a disease of *sandhi*. In this condition vitiated *vayu* gets localized in *sandhi* and cause *sandhishula, sandhishotha* and *akunchana prasarana janya vedana* and in the later stage *hanti sandhigatah*.

According to modern science Osteoarthritis is a chronic disorder of synovial joints. It is characterised by focal loss of cartilage with accompanying peri-articular bone response in the form of sub-condral bone sclerosis and attempted new bone formation by way of bony over growth called osteophytes. It Interferes patient's daily routine. There are more than 150 forms of arthritis and they affect one or more joints in body. Osteoarthritis is a most common form of arthritis and joint disorder especially in elderly. It occurs more in female than in male. Osteoarthritis involves all components of the joints, including bone, cartilage, meniscus and synovium.

Osteoarthritis affects the joint especially the weight bearing joints. Commonly affected joints are knee, hip, lumbosacral and cervical spine, base of thumb

and first metatarso-phalangeal joint. Wrist, elbow and ankle joints are also affected.

In minor cases Osteoarthritis remains asymptomatic but in symptomatic case pain in joints, joint stiffness, limitation of movement are most common symptoms and these are more prominent on walking up from the bed in morning.

Due to similarity in symptoms *Sandhigataavata* and Osteoarthritis can be taken as similar disease condition.

Aim and Objective

- To observe the effect of *Adityapaka Guggulu* with *Balashaireey Taila* in *Sandhigataavata*.
- To observe the effect of *Adityapaka Guggulu* with *Shatpushpaadi Lepa* in *Sandhigataavata*.
- To compare the difference of results in the above treatment groups.

MATERIAL AND METHOD

60 patients were selected randomly from OPD and IPD of shri Khudadad Doongaji Govt. Ayurvedic College Hospital, Raipur (C.G.). Detailed history of all patients were taken as per the proforma followed by physical examination and lab investigation. All signs and symptoms has been assessed under the scoring pattern. Study was started after obtaining Ethical clearance from

the Institutional Ethics Committee, Ref. No./IEC/2018/83, Proposal Ref. No.- 4/K.C./2017-18 and after taking written consent of patient of *Sandhigatavata* (Osteoarthritis).

Inclusion criteria –

- The patients were selected based on the symptoms described in Ayurvedic and Modern texts.
- Patient between age group of 40-70 years.
- Patient of either sex.

Exclusion criteria

- Patients below 40 and above 70 years of age.
- Patients suffering from disease like – Carcinoma, Psoriatic arthritis, Acute vatarakta, Phiranga, Systemic Lupus Erythematosus (SLE), Tuberculosis, AIDS, Bed ridden patient, Patients with skin allergies/skin diseases, Patients using local Anti-

inflammatory medicine other than the research drugs, Patients with metallic implants and other fatal infectious disease are excluded.

- Pregnant and lactating mother.
- Chronic cases having complications.

Selection of Drug – In this study *Adityapaka guggulu* and *Balashaireeya taila* which are described in *Chakradatta* and *Shatpushpadi Lepa* which is described in *Yogratnakar* are selected.

Adityapaka Guggulu

Granth praman – Chakradatta

Granthkarta – Chakrapani datta (vyakhyakar dr.indradev tripathi)

Mulpaath – Vatavyadhi Chikitsa Prakaran (adhyay 22/66-67)

Ingredient.

SN	Drugs	Ras	Guna	Virya	Vipaka	Doshagnata	Prayojy anga	Prabhav
1.	Haritaki <i>Terminalia chebula</i> Retz.	<i>Lavanrahita-Pancharasa (Kashaya-pradhan)</i>	<i>Laghu, Ruksha</i>	<i>Usna</i>	<i>Madhura</i>	<i>Tridosha Shamaka Especially - Vata Shamaka</i>	Fruit	<i>Tridosh Shamka</i>
2.	Bibhitaka <i>Terminalia bellirica</i> Roxb	<i>Kashaya</i>	<i>Laghu, Ruksha</i>	<i>Usna</i>	<i>Madhura</i>	<i>Tridosha Shamaka Especially - Kapha Shamaka</i>	Fruit	<i>Kashara</i>
3.	Amalaki <i>Emblica officinalis</i> Gaertn.	<i>Pancharasa (Lavan rahita)</i>	<i>Guru, Ruksha Sheet</i>	<i>Sheet</i>	<i>Madhura</i>	<i>Tridosha Shamaka Especially - Pitta Shamaka</i>	Fruit	<i>Rasayana</i>
4.	Pippali <i>Piper longum</i> Linn.	<i>Katu</i>	<i>Laghu, Snigdha, Tikshna</i>	<i>Unusna sheet</i>	<i>Madhura</i>	<i>Kaphavata Shamaka</i>	Fruit	<i>Deepana</i>
5.	Dalchini <i>Cinnamomum Zylanicum</i> Breyn	<i>Katu, Tikta, Madhura</i>	<i>Laghu, Ruksha, Tikshna</i>	<i>Usna</i>	<i>Katu</i>	<i>Kaphavata Shamaka</i>	Bark	<i>Vatanulomana</i>
6.	Elayachi/Ela <i>Eeattaria Cardamomum</i> Maton	<i>Katu, Madhura]</i>	<i>Laghu</i>	<i>Sheet</i>	<i>Madhura</i>	<i>Tridosha Shamaka</i>	Fruit	<i>Vatanulomana</i>
7.	Guggulu <i>Commiphora mukul</i> Engl.	<i>Tikta, Katu</i>	<i>Laghu, Ruksha, Tikshna, Vishada, sara, Such ama, Sugandhi (Puran) Snigdha, Picchila (Naveen Guggulu)</i>	<i>Usna</i>	<i>Katu</i>	<i>Vatakapha Shamaka</i>	<i>Niryas</i>	<i>Tridoshara, Rasayana, Medohara</i>
8.	Shalaparni <i>Desmodium gangeticum</i> DC.	<i>Madhura, Tikta</i>	<i>Guru, Snigdha,</i>	<i>Usna</i>	<i>Madhura</i>	<i>Tridosha Shamaka</i>	<i>Pancha nga</i>	<i>Balya</i>
9.	Prishnaparni <i>Uraria picta</i> Desv	<i>Madhura, Tikta</i>	<i>Laghu, Snigdha,</i>	<i>Usna</i>	<i>Madhura</i>	<i>Tridosha Shamaka</i>	Root	<i>Sandhaniya</i>

10.	Brihati <i>Solanum indicum</i> Linn.	<i>Katu, Tikta</i>	<i>Laghu, Ruksha, Tikshna</i>	<i>Usna</i>	<i>Katu</i>	<i>Kaphavata Shamaka (A. H.), Vatapitta Shamaka (Su. S.)</i>	Root / Fruit	
11.	Kantkari <i>Solanum Surattense</i> Burm.f.	<i>Tikta, Katu</i>	<i>Laghu, Ruksha, Sara</i>	<i>Usna</i>	<i>Katu</i>	<i>Kaphavata Shamaka</i>	<i>Panchanga</i>	<i>Kanthaya</i>
12.	Gokshura <i>Tribulus terrestris</i> Linn.	<i>Madhura</i>	<i>Guru, Snigdha,</i>	<i>Sheet</i>	<i>Madhura</i>	<i>Vatapitta Shamaka</i>	Fruit	<i>Mutravirechaniya</i>
13.	Bilva <i>Aegle marmelos</i> Corr.	<i>Kashaya, Tikta</i>	<i>Laghu, Ruksha</i>	<i>Usna</i>	<i>Katu</i>	<i>Kaphavata Shamaka</i>	Bark	<i>Grahi</i>
14.	Agnimantha <i>Premna mucronata</i> Roxb.	<i>Tikta, Katu, Kashaya, Madhura</i>	<i>Ruksha, Laghu</i>	<i>Usna</i>	<i>Katu</i>	<i>Kaphavata Shamaka</i>	Root-Bark	<i>Shothahara, Anuloana</i>
15.	Shyonaka <i>Oroxylum indicum</i> Vent.	<i>Madhura, Tikta, Kashaya</i>	<i>Ruksha Laghu</i>	<i>Usna</i>	<i>Katu</i>	<i>Kaphavata Shamaka</i>	Root-Bark	<i>Sangrahaka</i>
16.	Patla <i>Stereospermum Suaveolens</i> DC.	<i>Tikta, Kashaya</i>	<i>Ruksha, Laghu</i>	<i>Unusna</i>	<i>Katu</i>	<i>Tridosha Shamaka</i>	Root-Bark	<i>Vedanasthapana</i>
17.	Gambhari <i>Gmelina arborea</i> Linn.	<i>Tikta, Kashaya, Madhura</i>	<i>Guru</i>	<i>Usna (Fruit-Sheet)</i>	<i>Katu</i>	<i>Tridosha Shamaka</i>	Root	<i>Dahprasamana</i>

Balashaireey Taila

Granth praman – Chakradatta

Granthkarta – Chakrapani datta (vyakhyakar dr.indradev tripathi)

Mulpaath – Vatavyadhi Chikitsa Prakaran (adhyay 22/100)

Ingredient

S.N.	Drugs	Rasa	Guna	Virya	Vipaka	Doshaghnata	Prayojyanga	Prabhav
1	Bala <i>Sida cordifolia</i> Linn	<i>Madura</i>	<i>Laghu, Snigdha, Pichchhila</i>	<i>Sheet</i>	<i>Madhura</i>	<i>Pittavata Nashaka(Su.S.) Kaphavata Nashaka (A.H.) Vatapitta Shamaka (Sharma)</i>	<i>Root, Seed</i>	<i>Balya</i>
2	Shaireyaka/ Sahachara <i>Barleria Prionitis</i> Linn	<i>Tikta, Madhura</i>	<i>Snigdha, Laghu</i>	<i>Usna</i>	<i>Katuq</i>	<i>Kaphavata Shamaka</i>	<i>Leaf/ Panchanga</i>	<i>Vedna prashamana</i>
3	Tila <i>Sesamum indicum</i> Linn.	<i>Madhura, Katu, Tikta, Kashaya</i>	<i>Guru, Snigdha,</i>	<i>Usna</i>	<i>Madhura</i>	<i>Vata Shamaka, Kaphapitta Shamaka</i>	<i>Oil</i>	<i>Mutra Sangrahniya</i>
4	<i>Godugdha</i>	<i>Madhura</i>	<i>Snigdha,</i>	<i>Sheet</i>	<i>Madhura</i>	<i>Vatapitta Shamaka</i>		

Shatpushpadi Lepa

Granth praman – Yogratnakar

Granthkarta – Vaidya Laxmipati Shastri.

Mulpaath – Vatavyadhi Nindan (shlok 3)

Ingredient

S.N.	Drugs	Rasa	Guna	Virya	Vipaka	Doshagnata	Prayojyanga	Prabhav
1	Shatpushpa <i>Anethum Sowa</i> Roxb.	<i>Katu,</i> <i>Tikta</i>	<i>Laghu,</i> <i>Ruksha,</i> <i>Tikshna</i>	<i>Usna</i>	<i>Katu</i>	<i>Kaphavata</i> <i>Shamaka</i>	<i>Fruit</i>	<i>Deepana,</i> <i>Pachana</i>
2	Devdaru <i>Cedrus</i> <i>deodara(Roxb.)</i> Loud.	<i>Tikta</i>	<i>Laghu,Sni</i> <i>gdha</i>	<i>Usna</i>	<i>Katu</i>	<i>Kaphavata</i> <i>Shamaka</i>	<i>Kandasaar</i>	<i>Vednasthapana</i>
3	Arka <i>Calotropis</i> <i>procera(Ait)R.Br</i>	<i>Katu,</i> <i>Tikta(flow</i> <i>er-Tikta,</i> <i>Madhura)</i>	<i>Laghu,</i> <i>Ruksha,</i> <i>Tikshna</i>	<i>Usna</i>	<i>Katu</i>	<i>Kaphavata</i> <i>Shamaka (Flower -</i> <i>Kaphapitta</i> <i>Shamaka)</i>	<i>Milk, Leaf</i> <i>,Flower,</i> <i>Root-Bark</i>	<i>Kusthagna</i>
4	Kutha <i>Saussurea</i> <i>lappaC.B.</i> Clarke	<i>Tikta,Katu</i> <i>,Madhura</i>	<i>Laghu,</i> <i>Ruksha,</i> <i>Tikshna,</i>	<i>Usna</i>	<i>Katu</i>	<i>Kaphavata</i> <i>Shamaka</i>	<i>Root</i>	<i>Rasayana</i>
5	Hingu <i>Ferula</i> <i>narthexBoiss.</i>	<i>Katu</i>	<i>Laghu,Sni</i> <i>gdha,</i> <i>Tikshn,</i> <i>Sara</i>	<i>Usna</i>	<i>Katu</i>	<i>Kaphavata</i> <i>Shamaka,</i> <i>Vardhaka</i> <i>pitta</i>		<i>Shulhara</i>
6	Saindhava Lavan <i>Sodii Chloridum</i>	<i>Lavana</i>	<i>Laghu,Sni</i> <i>gdha</i>	<i>Sheet</i>	<i>Madhura</i>	<i>Tridosha Shamaka</i>		

Grouping of Patients – Selected patients were studied under 2 groups as follow–

Group A – 30 Patients of Group A were given *Adityapaka Gugglu* Dose – 2 tab/QID (each tablet-500mg) + *Balashaireeya taila* (for local application) Dose – As required Anupana – Lukewarm cowmilk Duration – 90 days Follow up – Every 15 days

Group B - 30 Patients of Group B were given *Adityapaka Gugglu* Dose – 2 tab/QID (each tablet-500mg) + *Shatpushpadi Lepa* (for local application) Dose – As required Anupana – Lukewarm cowmilk Duration – 90 days Follow up – Every 15 days

Assessment Criteria –

(A) Subjective Criteria

1. Pain
2. Swelling
3. Pain during flexion & extension
4. Crepitus
5. Tenderness
6. Morning stiffness
7. Standing time
8. Burning sensation

(B) Objective Criteria

1. CBC
2. ESR
3. RA Factor
4. Urine – R, M
5. Blood Sugar – F, PP
6. X-Ray

Grading of Assessment Criteria –

1. Sandhishula (Pain).

Criteria	Grading
Absent	0
Present but Unbearable	1
Moderate pain and pain > 6 hrs	2
Severe pain, Difficulty in routine work	3

2. Sandhi Shoth (Swelling).

Criteria	Grading
Absent	0
Mild swelling with Heaviness in joints	1
Moderate swelling But able to do work	2
Severe swelling and unable to do work	3

3. Aankunchan prasaran janya vedana(pain during movements of joints).

Criteria	Grading
Absent	0
Mild pain present but face is expressionless	1
Moderate changes in expression of face due to pain	2
Severe absence of extension and flexion in joints	3

4. Shandhi sphutan(Crepitus).

Criteria	Grading
Absent	0
Mild perception on touch	1
Moderate Audible on touch	2
Severe clearly Audible	3

5. Sparsh asahyata (Tenderness).

Criteria	Grading
Absent	0
Mild tenderness	1
Moderate – winching of face on touch	2
Severe - Does not allow to touch the joint	3

6. Sandhi grah (Morning stiffness).

Criteria	Grading
Absent	0
Mild – morning stiffness of 5 – 10 min duration	1
Moderate- morning stiffness 10-15 min duration	2
Severe- morning stiffness of 15-13 min duration	3

7. Standing time.

Criteria	Grading
For 30 minutes and above	0
For 20 – 29 minutes	1
For 10 to 19 minutes	2
Below 10 minutes	3

8. Dah (Burning Sensation).

Criteria	Grading
Absent	0
Mild burning sensation and bearable	1
Moderate burning sensation with less hot perception	2
Severe burning sensation with more hot perception	3

Analysis – Analysis of data was done by using SPSS (Statistical program for social science version 16.0). Mean, percentage, +/- S.D. , +/- S.E. , t and p value were calculated. Paired t test was used for calculating the t̂ value.

The results were interpreted as

Pvalue > 0.05 Insignificant

Pvalue < 0.01-0.05 Significant

Pvalue < 0.01 & < 0.001 Highly Significant

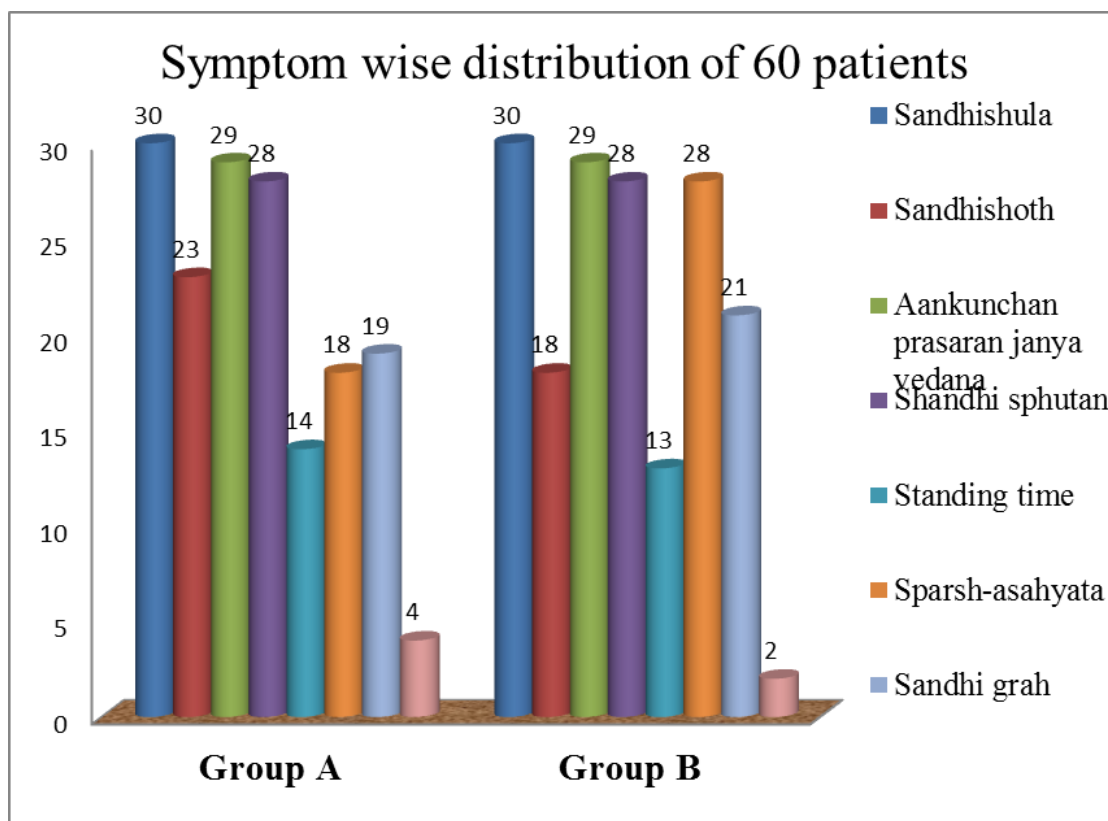
Criteria for Assessing The Total Effect

Considering the overall improvement as show by the patient in sign and symptoms, the total effect of the therapy has been assessed as below.

1. Marked improvement – 76-100% relief in sign and symptoms
2. Moderate improvement – 51-75% relief in sign and symptoms
3. Mild improvement – 26-50% relief in sign and symptoms
4. Unchanged – 0-25% relief in sign and symptoms

Symptom wise distribution of 60 patients.

S.N.	Symptom	No. of patients		Total	Percentage
		Group A	Group B		
1.	<i>Sandhishula</i>	30	30	60	100%
2.	<i>Sandhishoth</i>	23	18	41	68.33%
3.	<i>Aankunchan prasaran janya vedana</i>	29	29	58	96.67%
4.	<i>Shandhi sphutan</i>	28	28	56	93.33%
5.	<i>Standing time</i>	14	13	27	45.00%
6.	<i>Sparsh-asahyata</i>	18	28	46	76.67%
7.	<i>Sandhi grah</i>	19	21	40	66.67%
8.	<i>Dah</i>	4	2	6	10.00%



Percentage of relief in chief complaints (Subjective) in 30 Patients of Group A.

S. N.	Sign and Symptoms	Before Treatment (BT)					After Treatment (AT)					% of relief
		G0	G1	G2	G3	Total	G0	G1	G2	G3	Total	
1.	<i>Sandhishula</i>	0	8	18	4	56	10	20	0	0	20	64.29%
2.	<i>Sandhishoth</i>	7	22	1	0	24	20	10	0	0	10	58.33%
3.	<i>Aankunchan prasaran janya vedana</i>	1	14	10	5	49	19	11	0	0	11	77.55%
4.	<i>Shandhi-sphutan</i>	2	17	8	3	42	9	21	0	0	21	50.00%
5.	<i>Standing time</i>	16	12	1	1	17	30	0	0	0	0	100%
6.	<i>Sparsh-asahyata</i>	12	14	3	1	23	27	3	0	0	3	86.96%
7.	<i>Sandhi grah</i>	11	4	7	8	42	24	5	1	0	7	83.33%
8.	<i>Dah</i>	26	4	0	0	4	29	1	0	0	1	75.00%

Percentage of relief in chief complaints (Subjective) in 30 Patients of Group B.

S.N.	Sign and Symptoms	Before Treatment(BT)					After Treatment (AT)					% of relief
		G0	G1	G2	G3	Total	G0	G1	G2	G3	Total	
1.	<i>Sandhishula</i>	0	5	23	2	57	4	26	0	0	26	54.39%
2.	<i>Sandhishoth</i>	12	13	5	0	23	25	5	0	0	5	78.26%
3.	<i>Aankunchan prasaran janya vedana</i>	1	18	8	3	43	16	14	0	0	14	67.44%
4.	<i>Shandhi-sphutan</i>	2	15	11	2	43	5	25	0	0	25	41.86%
5.	<i>Standing time</i>	17	11	2	0	15	29	1	0	0	1	93.33%
6.	<i>Sparsh-asahyata</i>	2	21	5	2	37	26	3	1	0	5	86.49%
7.	<i>Sandhi grah</i>	9	3	12	6	45	19	6	5	0	16	64.44%
8.	<i>Dah</i>	28	1	1	0	3	29	1	0	0	1	66.67%

Statistical analysis showing the effect of therapy on various sign and symptoms in 30 patients of Group A.

S. N.	Sign and Symptos	Mean		Mean Difference	% of relief	S.D. (+/-)	S.E. (+/-)	t-Value	p-Value	Remark
		BT	AT							
1	<i>Sandhishula</i>	1.87	0.67	1.20	64.29%	0.664	.121	9.893	0.000	HS
2	<i>Sandhishoth</i>	.80	0.30	0.5 0	58.33%	0.508	.092	5.385	0.000	HS
3	<i>Aankunchan prasaran janya vedana</i>	1.63	0.37	1.27	77.55%	0.691	.126	10.033	0.000	HS
4	<i>Shandhi-sphutan</i>	1.40	0.37	1.03	50.00%	.809	.148	6.998	0.002	HS
5	<i>Sparsh-asahyata</i>	0.57	0.00	0.57	83.33%	.728	.113	4.264	0.326	HS
6	<i>Sandhi grah</i>	0.83	0.10	0.73	100%	.785	.143	5.117	0.001	HS
7	<i>Standing time</i>	1.40	0.23	1.67	86.96%	1.085	.198	5.887	0.000	HS
8	<i>Dah</i>	.13	.03	.10	75.00%	.305	.058	1.795	.083	NS

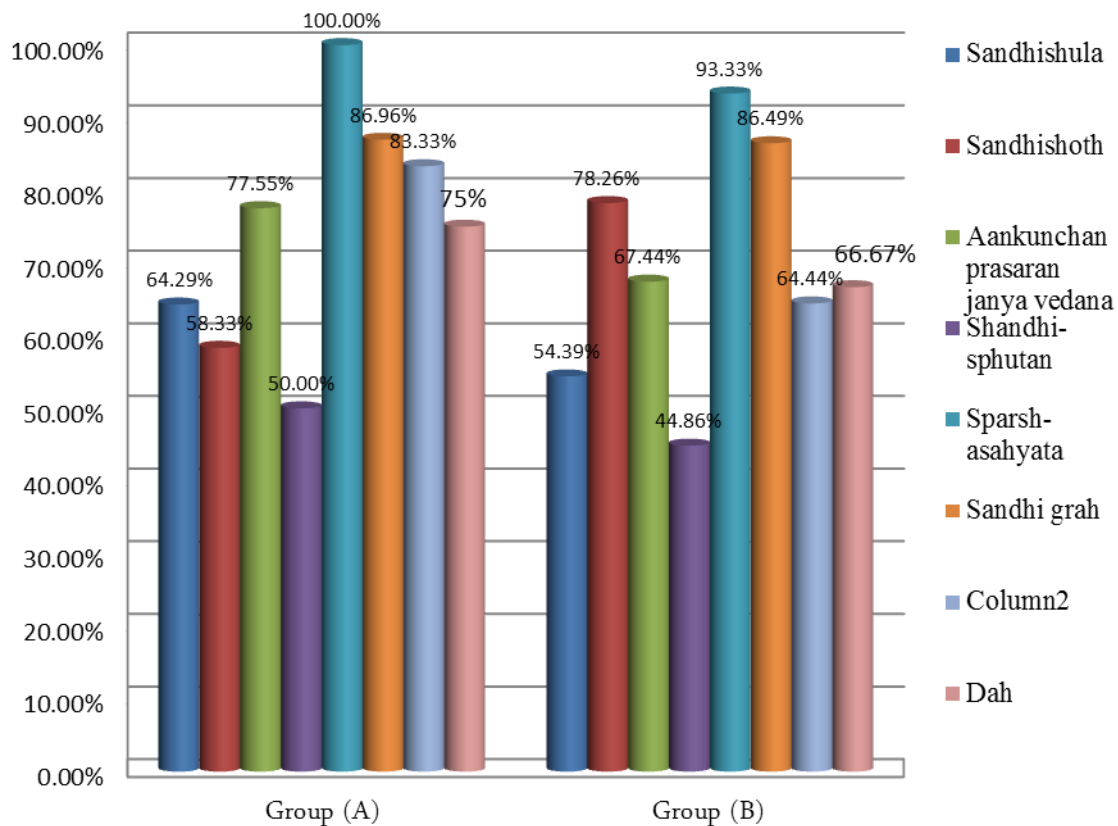
Statistical analysis showing the effect of therapy on various sign and symptoms in 30 patients of Group B.

S.N.	Sign and Symptos	Mean		Mean Difference	% of relief	S.D. (+/-)	S.E. (+/-)	t-value	p-value	Remark
		BT	AT							
1	<i>Sandhishula</i>	1.97	0.87	1.10	54.39%	0.403	.074	14.966	0.000	HS
2	<i>Sandhishoth</i>	.77	0.17	0.60	78.26%	0.621	0.113	5.288	0.000	HS
3	<i>Aankunchan prasaran janya vedana</i>	1.43	0.47	0.97	67.86%	0.850	0.155	6.227	0.000	HS
4	<i>Shandhi-sphutan</i>	1.43	0.83	0.60	41.86%	0.621	0.113	5.288	0.002	HS
5	<i>Sparsh-asahyata</i>	0.50	0.03	0.47	93.33%	0.629	0.115	4.065	0.326	HS
6	<i>Sandhi grah</i>	0.23	0.17	0.07	86.49%	0.450	0.082	12.990	0.001	HS
7	<i>Standing time</i>	1.47	0.53	.93	64.44%	.828	0.151	6.176	0.000	HS
8	<i>Dah</i>	.10	.03	.07	66.67%	.254	.046	1.439	.161	NS

Percentage table of intensity and improvement of pre and post-operative symptoms of Sandhigatavata in group A and group B patients.

S.N.	Sign and Symptoms	Group (A)	Group (B)
1.	<i>Sandhishula</i>	64.29%	54.39%
2.	<i>Sandhishoth</i>	58.33%	78.26%
3.	<i>Aankunchan prasaran janya vedana</i>	77.55%	67.44%
4.	<i>Shandhi-sphutan</i>	50.00%	44.86%
5.	<i>Sparsh-asahyata</i>	100%	93.33%
6.	<i>Sandhi grah</i>	86.96%	86.49%
7.	<i>Standing time</i>	83.33%	64.44%
8.	<i>Dah</i>	75.00%	66.67%

Comparative description of improvement percentage of symptoms achieved in



Statistical showing the effect of therapy on various objective criteria in 30 patients of group A.

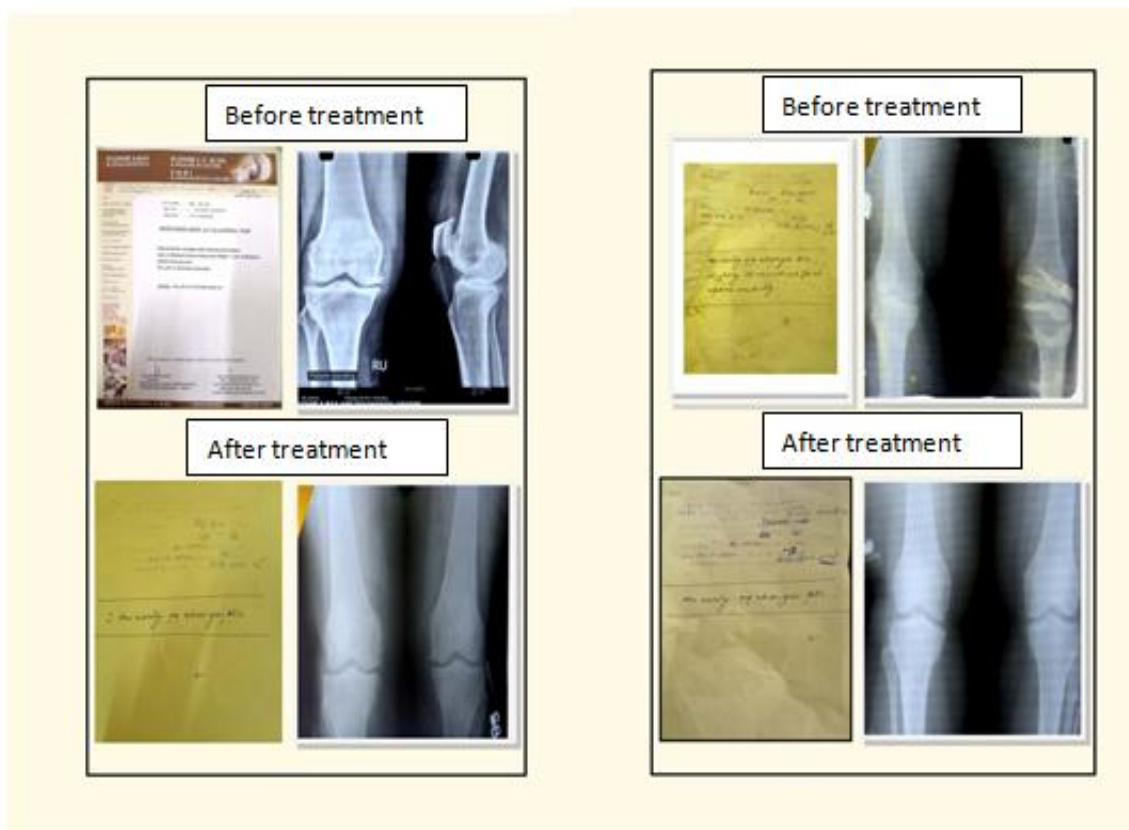
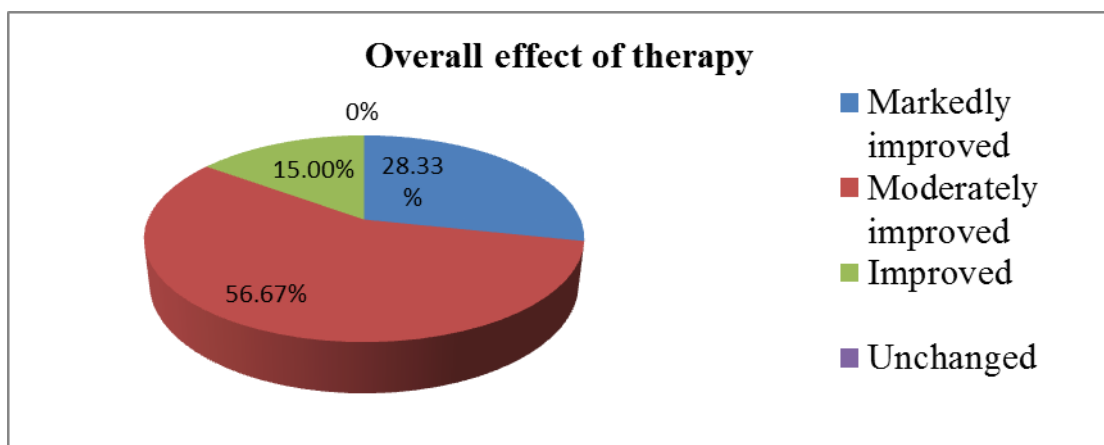
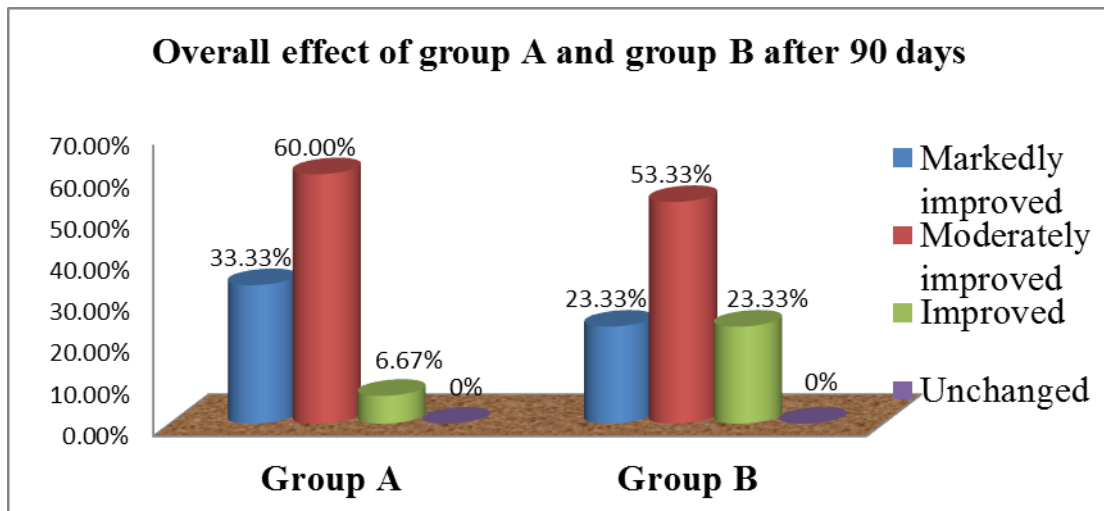
S.N.	Objective parameters	Mean		Mean Difference	% of relief	S.D. (+/-)	S.E. (+/-)	t-value	p-value	Remark
		BT	AT							
1	Hb%	14.52	11.53	2.99	20.59%	16.966	3.097	.966	.342	NS
2	TLC	44.77	40.50	4.27	9.54%	14.443	2.637	1.618	.116	NS
3	ESR	144.13	135.10	9.03	6.27%	43.510	7.943	1.137	.265	NS
4	R.B.S.	24.23	8.43	.023	-0.27%	1.380	.252	-.093	.927	NS

Statistical showing the effect of therapy on various objective criteria in 30 patients of group B.

S.N.	Objective parameters	Mean		Mean Difference	% of relief	S.D. (+/-)	S.E. (+/-)	t-value	p-value	Remark
		BT	AT							
1	Hb%	8.46	12.54	.020	0.16%	.969	1.77	.115	.909	NS
2	TLC	12.56	34.57	.200	0.56%	10.841	1.979	.101	.920	NS
3	ESR	34.77	113.20	8.600	-8.22%	41.612	7.597	-1.132	.267	NS
4	R.B.S.	104.60	8.97	.167	1.83%	1.336	.244	.684	.500	NS

Comparison of overall effect of group A and B.

S.N.	Assessment	Group A		Group B		Total	
		No. of patients	%	No. of patients	%	No. of patients	%
1.	Markedly improved (76-100%)	10	33.33%	7	23.33%	17	28.33%
2.	Moderately improved (51-75%)	18	60%	16	53.33%	34	56.67%
3.	Improved (26-50%)	2	6.67%	7	23.33%	9	15.00%
4.	Unchanged (0%-25%)	0	0%	0	0%	0	0%
	Total	30		30		60	100%



DISCUSSION

- Chief complains reported were *Sandhishula* observed in 100%, *Akunchana prasarana janya vedana* in 96.67%, *Sandhisphutan* in 93.33%, *Sparsh asahyata* in 76.67%, *Sandhi shoth* in 68.33%, *Sandhigrah* in 66.67%, Reduce standing time in 45.00% and *Dah* in 10.00% of patients.
- The subjective parameter, improvement in cardinal sign and symptoms in the present study is 64.29% & 54.39% in *Sandhishula*, 58.33% & 78.26% in *Sandhishoth*, 77.55% & 67.44% in *Aakunchana prasarana janya vedna*, 50.00% & 41.86% in *Sandhisphutan*, 100% & 93.33% in *Sparsh asahyata*, 86.96% & 86.49% in *Sandhigrah*, 83.33% & 64.44% in Reduced standing time, 75.00% & 66.67% in *Dah* among Trail Group A (*Adityapaka Guggulu* and *Balashaireey Taila*) & Trail Group B (*Adityapaka Guggulu* and *Shatpushpadi Lepa*) respectively. This show the case achieved more benefit by Trail Group A than Trail Group B.
- The objective parameters, the study was evaluated in percentage against different objectives. The percentage being 20.59% & 0.16% in Hb%, 9.54% & 0.56% in TLC (WBC), 6.27% & -8.22% in ESR, -0.27% & 1.83% in Random Blood Sugar (RBS), among Trail Group A and Trail Group B respectively. Both the group shows Non Significant result but the cases achieved more benefit in Trail Group A than trail Group B.
- The clinical assessment of result shows that in Group A maximum patient 10 (33.33%) were markedly improved, 18 (60%) showed moderately improved, 2 (6.67%) were improved.
- Where as in Group B, 7 (23.33%) patient were markedly improved, 16 (53.33%) patient showed moderately improved and 7 (23.33%) patient were improved. Hence it can be said that both combinations *Adityapaka Guggulu* with *Balashaireey Taila* and *Adityapaka Guggulu* with *Shatpushpadi Lepa* play important role in the management of *Sandhigatavata*.

CONCLUSION

- Both groups (group A and group B) are effective in the management of *Sandhigatavata* but Group A (*Adityapaka Guggulu* and *Balashaireey Taila*) is more effective in the remission of the symptoms of *Sandhigatavata* as evidenced by statistically significant reduction in the symptom score.
- On the basis of the symptoms, the drugs gave very encouraging results in addition to *Sandhisphutan* and *Sandhishoth*.
- Drugs in both groups appeared to be effective for subjective parameters of the disease.
- Changes were also seen in x-rays
- The treatment is effective and equally safe.

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