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A RANDOMIZED CONTROLLED TRIAL OF *INDRAVARUNIMULADI CHURNA* IN THE MANAGEMENT OF *SANDHIGATA VATA* W. S. R. TO OSTEOARTHRITIS

Dr. C. S. Tanmane[1*] and Dr. A. Y. Khan[2]

Proff and H. O. D Kayachikitsa Department[1] and M. D Scholar Kayachikitsa Department[2]
Bhausaheb Mulak Ayurved Mahavidyalaya Nagpur.

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***Corresponding Author**
Dr. C. S. Tanmane
Proff and H.O.D
Kayachikitsa Department,
Bhausaheb Mulak Ayurved
Mahavidyalaya Nagpur.

ABSTRACT

Sandhigata vata is the diseases where vitiated *Vata Dosha* get localised in joints. The common presentation of this pathogenesis is seen in *Janusandhi*. The clinical features of *Sandhigatavata* resembles with Osteoarthritis of modern medical science. Osteoarthritis is joint inflammations that result from cartilage degeneration. Among the over 100 different types of arthritis conditions, Osteoarthritis is the most common joint disease. Osteoarthritis is a form of arthritis that features the breakdown and eventual loss of the cartilage of one or more joints. Excess weight is one of the biggest risk factors of Osteoarthritis. It is said to be caused by the excessive intake of *vata vruddhikaraahara* like *katu, tikta, kashayarasa pradhanadravya* and *ativyayama* or *abhighata* etc. Due to above *hetus vata* get vitiate or aggravate. This *vayu* enters in sandhi *sthana* and symptom of *sandhigata vata* occurs.

KEYWORDS: Sandhigata Vata, Vata Dosha, OsteoArthritis, Indravarunimuladi churna, Abhadi Churna.

INTRODUCTION

Now a day *Sandhigata vata* has been identified as one of the most serious public health problem. Prevalence of *Sandhigata vata* is 22% to 39% in various parts of India. The vitiation of *vata* is of two types *Dhatukshaya janya Margavarodh janya*. In Ayurveda the treatment of *sandhigata vata* is aimed at reducing *the vata dushti*. For this many acharyas like *Sushrutacharya, Vagbhatacharya, charak, Acharya, Chakradatta, Rasaratnasamuchchaye, Sharangdhar samhita, Bhavaprakash, Vangsen* etc. have been explained varies drugs. So

Indravarunimuladi churna explained in the *Rasaratnasamuchchaye. Indravarunimuladi churna* is made by the drugs *indravarunimula* having properties like *ushna virya, katu vipaka* and *pippali* having *madhur vipaka* and the karma of *indravaruni mula* is mala *shodhan*, the karma of *Abhadichurna* is *vata shaman*, so mala *vruddhi* and other *vata vruddhikar* factors will be responsible for *Atop* and other *vata vruddhi symptoms* and that *vata* goes to Sandhi *Sthanas* and developed *Sandhigata vata* by this cost effective management we do first mala *shodhan* and the *vata shaman*. Allopathic treatment has its own limitation in managing this disease. It can provide either conservative or surgical treatment and is highly symptomatic and with troublesome side effects. 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 asymptomatically in the 2nd & 3rd decades Whereas such type of conditions can be better treatable by the management and procedures mentioned in Ayurvedic classics. Ayurveda, the complete life science has given special emphasis to concept of *Vata* and its physiological and functional aspect in life of human being. Vata has its two functional entities that are *"Gati* and *Gandha"*. *Gati* means movement and *Gandha* means conduction. as soon as the life comes in the mothers womb the functional aspect of *vayu* comes into action and is responsible for the placement of all the parts of the body in their proper position. proper development and nourishment are solely dependent upon the proper functioning of the *vayu*.

AIMS AND OBJECTIVES

Primary objective

Whether (group-1) *Indravarunimuladichurna* mentioned in *Rasaratnasamuchchaye* with number of patients 35 more effective than (group-2) *Abhadi churna* mentioned in *Yogaratnakar* with number of patient 35 on *Sandhigata vata*. When it is given at the dose of 5gm twice a day after meal for the study duration of 28 days W. S. R. to Osteoarthritis.

Secondary Objective

whether (group-2) *Abhadi churna* mentioned in *Yogaratnakar* with number of patient 35more effective than (group-1) *Indravarunimuladi churna* mentioned in *Rasaratnasamuchchaye* with number of patients 35 on *Sandhigata vata*. When it is given at the dose of 5gm twice a day after meal for the study duration of 28 days W. S. R. to Osteoarthritis.

MATERIAL AND METHODS

Group -1: indravarunimuladi churna (trial) and group -2 abhadi churna (control)

GROUP 1= 3 DRUGS AND GROUP 2=11 DRUGS

Srno	Drug	Family	Latin name	Rasa	Virya	Vipak
1	Indravaruni Mool	Cucurbitaceae	Citrulls colocyt-his	Tikta	Ushana	Moola
2	Pimpli	Piperaceae	Piper longum	Katu	Anushna	Phala
3	Guda	Poaceae	Saccharu mofficinarum	Madhur	Sheet	

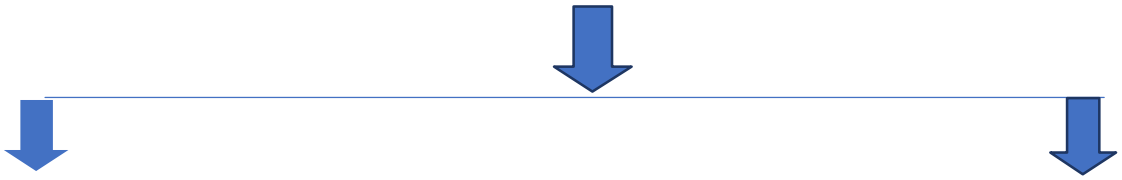
Sr. no	Drug	Family	Latin name	Chemical composition	Part used
1	Babool	Mimosaceae	Acacia Arabica	Tanin	Chhal
2	Rasna	Asteraceae	Alpiniagalanga	-	Moola
3	Asgandha	Solanaceae	Withania Somniferae	Withaniol, Hentriacontane, Somniferin	Moola
4	Shatavari	Liliaceae	Asparagus Racemosus	-	Moola
5	Saunf	Umbelliferae	Foeniculumvul Garemill	Anethol, Fenchone	Seed
6	Hauber	Cupressaceae	Junisperuscom Munislinn	Juniperin, Organic acid	Wood
7	Guduchi	Menispermaceae	Tinospora Cordifolia	Giloin, Berberin	Moola
8	Shunthi	Zingiberaceae	Zingiber officinale Rose	-	Rhizome
9	Ajmoda	Apiaceae	Carum Roxburghianum Sprague	-	Fruits
10	Ajwan	Apiaceae	Trachyspermum Ammi sprague	-	Fruits
11	Vidhara	Convulvulaceae	Argyreia Nervosa sweet	-	Leaves

CLINICAL TRIAL

Study Type: Open randomized clinical study.

Study design: Permission for conduction of trial and no objection certificate from Institutional Ethical committee was taken. Screening of subjects from OPD and IPD of *kayachikitsa* department done.

Initial assessment done, whether subject fits in criteria of diagnosis, inclusion and exclusion. And those who fit in criteria were taken informed consent from every patient. Proper case history was taken and special case record was prepared, clinical finding were recorded as per case record form and given treatment



Group A: *Indravarunimuladi churna* (35 patient) Group B: *Abhadi churna*(35 patient)

Dose of 5gm twice a day after meal Follow up at the 7 th, 14th, 21st, 28th, 35thday Final assessment at the end of the treatment after 35 days.

Inclusion criteria

a) The patients suffering from, and osteoarthritis having involvement of knee joint.

b) Irrespective of their sex, Religion, occupation and economical status.

c) Co-operative patient.

Exclusion Criteria

a) Known cases of Rheumatoid arthritis, Gout arthritis.

b) Pregnant women and lactating mothers.

c) Patients suffering from systemic diseases.

d) Known case of Diabetes Mellitus, Pulmonary Tuberculosis, Chronic Alcoholism, & Hypertension.

e) Patient depending upon steroids for the relief and currently participating in any other clinical trial [since last 3 month].

f) Non–co operative patients.

Withdrawal Criteria

a) Patient fail to report for follow up or irregular medication.

b) Patient unable to tolerate the treatment.

c) Any adverse drug reaction of treatment on patient. And these patients will be treated for their complications.

Treatment protocol

Patients selected irrespective of religion, sex and socioeconomic status and further management done. All the patients taken are Randomly divided into 2 groups such as.

Group- A: Indravarunimuladi churna and Group-B: Abhadi churna

Group	Group A	Group B
Drug	Indravarunimuladi churna	Abhadi churna
Dose	5 gm	5 gm
Time	Adhobhakta	Adhobhakta
Duration	4 weeks	4 weeks
Anupana	Koshna jala	Koshna jala

Follow up at the 7th, 14th, 21st, 28th, 35th day Final assessment at the end of the treatment after 35 days.

CRITERIA FOR ASSESSMENT

The overall criteria for assessment will be as follows

A) clinical parameters.

B) Functional parameters.

CLINICAL PARAMETERS

1) Sandhishoola (joint pain)

Grade	Description	Score
Grade 0	No pain	0
Grade 1	Mild pain	1
Grade 2	Slight difficult to walking	2
Grade 3	Severe difficult walking	3

2) Sandhi sphutana (crepitus).

Grade	Description	Score
Grade 1	No crepitus	0
Grade 2	Crepitus during initiation of movement	1
Grade 3	Palpable crepitus during movement	2
Grade 4	Audible crepitus	3

3) Janu sandhi shotha: (joint swelling).

Grade	Description	Score
Grade 0	No swelling	0
Grade 1	Swelling not covering the bony prominence	1
Grade 2	Swelling covering bony prominence	2
Grade 3	Swelling covering above bony prominence with positive fluctuation	3

4) Akuchanprasaranayohvedana :(pain on extension and flexion)

Grade	Description	Score
Grade 0	No pain	0
Grade 1	Pain without wincing of face	1
Grade 2	Pain with wincing of face	2
Grade 3	Shout/prevent complete movement.	3

5) Sparsha Asahyata: (tenderness)

Grade	Description	Score
Grade 0	No tenderness	0
Grade 1	Patient says tenderness	1
Grade 2	Wincing of face on ouch	2
Grade 3	Does not allow touch joint	3

5) Janusandhistambha: (stiffness in knee joint).

Grade	Description	Score
Grade 0	No stiffness	0
Grade 1	Morning stiffness more than 30 min but less than 1 hour	1
Grade 2	Moring stiffness for more than 1 hour but less than 6 hour	2
Grade 3	Morning stiffness for more than 6 hours through the day	3

OBJECTIVE PATRAMETERS

1) Range of motion (goniometric angle of both knee joint before and after treatment will be measured).

Grade	Description	Score
Grade 0	135-116	0
Grade 1	115-106	1
Grade 2	105-96	2
Grade 3	95-8	3

2) Womac Scale

Grade	Description	Score
Grade 0	None	0
Grade 1	Mild	1
Grade 2	Moderate	2
Grade 3	Severe	3
Grade 4	Extreme	4

3) VAS (visual analogue scale for pain) Faces pain scale.

0	2	4	6	8	10
Very happy no hurt	Hurt just little bit	Hurts little more	Hurts even more	Hurts a whole lot	Hurts as much as you can imagine(don’t have to be crying to feel this much pain)

4) GENERAL FUNCTIONAL PARAMETERS.

Sr. no.	Severity	Score
1	Complete ability to carry out routine duties	0
2	Adequate normal activity despite slight difficulty in joint movement.	1
3	Few activities are restricted but patient can take care of himself	2
4	Few activities are restricted but patient can require few attention for care himself	3
5	Patient is totally bedridden.	4

For further Assessment of systemic involvement if necessary do CBC, blood sugar levels, ESR, urine Routine examination, X-ray.

CRITERIA ASSESSED

Jaani Sandhi Shoola.

Akunchan Prasaran.

Sparshasahatva.

Jaanu Sandhi Shotha.

Sandhi Sputana.

Sandhi Stambha.

Jaanu Sandhi General function.

WOMAC.

Range of Motion.

VAS.

All these criteria were analysed statistically for the "A Randomized Controlled Trial of "Indravarunimuladi Churna in the Management of Sandhigata Vata W. S. R. to Osteoarthritis." For these, measurements taken before treatment and after treatment in each group. As the data was Qualitative, paired and non-parametric, the test used is Wilcoxon matched pairs signed Rank test and for Qualitative, unpaired and non-parametric data, the test used is Mann Whitney U test. While for Quantitative, Paired&Parametric data, the test used is Student paired t test and for Quantitative, Unpaired and Parametric data, the test used is Student unpaired t test.

The Sample size is 35 in each group (Trial: 35 & Control: 35).

Result and Statistics To test whether there is significant difference in trial group and control group on an average if above stated factors are considered. The level of significance was set at 5% i. e., P value < 0. 05, indicate significance of results.

Within Control Group

To test the Hypothesis

The Null Hypothesis, Ho

There is No significant difference in before treatment and after treatment on an average if factors Jaanu Sandhi Shoola, Akunchan Prasaran, Sparshasahatva, Jaanu Sandhi Shotha, Sandhi Sputana, Sandhi Stambha, Jaanu Sandhi General Function, WOMAC, Range of motionare considered.

Vs.

The Alternate Hypothesis, Ha

There is significant difference in before treatment and after treatment on an average if factors Jaanu Sandhi Shoola, Akunchan Prasaran, Sparshasahatva, Jaanu Sandhi Shotha, Sandhi Sputana, Sandhi Stambha, Jaanu Sandhi General Function, WOMAC, Range of motionare considered. The test used is Wilcoxon matched-pairs signed rank test for two paired samples and to know the effectiveness of pairing Spearman Rank Correlation Coefficient Rs value is calculated.

Table No. : Comparative evaluation of above stated factors before treatment and after treatment (Control group)

Symptoms	Sum of Positive rank	Sum of Negative rank	W value	Rs Spearman	P value <0.05	Sig.
Jaanu Sandhi Shool	0	-528	-528	0.7393	<0.0001	Yes
Akunchan Prasaran	0	-190	-190	0.3169	<0.0001	Yes
Sparshasahatva	0	-6	-6	0.7184	0.2500	No
Jaanu Sandhi Shotha	0	-378	-378	0.6935	<0.0001	Yes
Sandhi Sputana	21	-210	-189	0.5977	0.0002	Yes
Sandhi Stambha	24	-112	-88	0.2516	0.0181	Yes
Janu Sandhi G Function	0	-561	-561	0.5943	<0.0001	Yes
WOMAC	0	-595	-595	0.4779	<0.0001	Yes
Range of Motion	0	-190	-190	0.6956	<0.0001	Yes

Since the **P value is < 0. 05**, the level of significance for factors *Jaanu Sandhi Shoola, Akunchan Prasaran, Jaanu Sandhi Shotha, Sandhi Sputana, Sandhi Stambha, Jaanu Sandhi* General Function, WOMAC, Range of motion.

There is strong evidence to reject the **null** hypothesis for above stated factors except *Sparshasahatva*.

So, the effect of therapy is statistically **significant** on *Jaanu Sandhi Shoola, Akunchan Prasaran, Jaanu Sandhi Shotha, Sandhi Sputana, Sandhi Stambha, Jaanu Sandhi* General Function, WOMAC, Range of motion except *Sparshasahatva*.

Within Trial Group

- The test used is **Wilcoxon matched-pairs signed rank test** for two paired samples and to know the effectiveness of pairing **Spearman Rank Correlation Coefficient Rs** value is calculated.

Comparative evaluation of above stated factors before treatment and after treatment (Trial group).

Symptoms	Sum of Positiverank	Sum of Negativerank	W Value	Rs Spearman	P value <0. 05	Sig.
Jaanu SandhiShool	11. 50	-288	-277	0. 7598	<0. 0001	Yes
AkunchanPrasaran	0	-105	-105	0. 3334	0. 0001	Yes
Sparshasahatva	4	-41	-37	0. 7246	0. 0313	Yes
Jaanu SandhiShotha	0	-300	-300	0. 5766	<0. 0001	Yes
Sandhi Sputana	0	-55	-55	0. 7520	0. 0020	Yes
Sandhi Stambha	11	-242	-231	0. 6573	<0. 0001	Yes
***Janu Sandhi* G Function**	0	-496	-496	0. 7674	<0. 0001	Yes
WOMAC	0	-630	-630	0. 8900	<0. 0001	Yes
Range ofMotion	0	-66	-66	0. 8463	0. 0010	Yes

Since the **P value is < 0. 05**, the level of significance for factors *Jaanu Sandhi Shoola, Akunchan Prasaran, Sparshasahatva, Jaanu Sandhi Shotha, Sandhi Sputana, Sandhi Stambha, Jaanu Sandhi* General Function, WOMAC, Range of motion.

There is strong evidence to reject the **null** hypothesis for above stated factors. So, the effect of therapy is statistically **significant** on above stated factors. Between the groups to test the hypothesis.

The Null Hypothesis: There is No significant difference in Trial group and Control group on an average if factors *Jaanu Sandhi Shoola, Akunchan Prasaran, Sparshasahatva, Jaanu Sandhi Shotha, Sandhi Sputana, Sandhi Stambha, Jaanu Sandhi* General Function, WOMAC, Range of motion are considered.

Vs Alternate Hypothesis: There is significant difference in Trial group and Control group on an average if factors *Jaanu Sandhi Shoola, Akunchan Prasaran, Sparshasahatva, Jaanu*

Sandhi Shotha, Sandhi Sputana, Sandhi Stambha, Jaanu Sandhi General Function, WOMAC, Range of motion are considered. The test used is Mann Whitney U test for two independent samples.

Table No. 30: Comparative evaluation of above stated factors inTrial.

Symptoms	Sum ofrank inTrial group	Sum ofrank in Controlgroup	U value	P value <0. 05	Sig.
Jaanu SandhiShool	1363	1123	492. 5	0. 1164	No
AkunchanPrasaran	1357	1129	498. 5	0. 1642	No
Sparshasahatva	1317	1169	538. 5	0. 2086	No
Jaanu SandhiShotha	1310	1175	545	0. 4265	No
Sandhi Sputana	1202	1284	571. 5	0. 6104	No
Sandhi Stambha	1048	1438	417. 5	0. 0111	Yes
Janu Sandhi GFunction	1461	1025	394. 5	0. 0042	Yes
WOMAC	1448	1038	407. 5	0. 0092	Yes
Range of Motion	1413	1073	442. 5	0. 0293	Yes

Since the **P value is < 0. 05**, the level of significance for factors *Sandhi Stambha, Jaanu Sandhi* General Function, WOMAC and Range of motion. There is strong evidence to reject the **null** hypothesis for factors *Sandhi Stambha, Jaanu Sandhi* General Function, WOMAC and Range of motion. So, the effect of therapy is statistically **significant** on above stated factors. For factors *Jaanu Sandhi Shoola, Akunchan Prasaran, Sparshasahatva, Jaanu Sandhi Shotha, Sandhi Sputana* **P value is>0. 05**, so there is strong evidence to reject the **alternate**hypothesis for these factors. So, the effect of therapy is statistically Non-significant on *Jaanu Sandhi Shoola, Akunchan Prasaran, Sparshasahatva, Jaanu Sandhi Shotha, Sandhi Sputana*.

Within Control Group: Factor VAS.

The Null Hypothesis, Ho

There is No significant difference in before treatment and after treatment on an average if factor VAS is considered he Hypothesis. Vs The Alternate Hypothesis, Ha: There is significant difference in before treatment and aftertreatment on an average if factor VAS is considered. The test used is Student paired t test for two paired samples.

Comparative efficacy of above stated factors before treatment and after treatment (Control Group)

Criteria	Mean of differences	S. D of differences	t value	P value	Sig.
VAS	-4. 057	1. 136	21. 13	<0. 0001	yes

Since the **P value is < 0. 05**, the level of significance for **factor VAS**. There is strong evidenc31e to reject the null hypothesis for factors stated above. In comparison of before treatment to after treatment, t calculated is greater than t table. So, the effect of therapy is statistically **significant** on **factor VAS. Within Trial Group: Factor VAS. The** test used is **Student paired t test** for two paired samples.

Comparative efficacy of above stated factorsbefore treatment and after treatment (Trial Group)

Criteria	Mean of differences	S. D of differences	t value	P value	Sig.
VAS	-3. 086	1. 222	14. 94	<0. 0001	Yes

Since the **P value is < 0. 05**, the level of significance for **factor VAS**.

There is strong evidence to reject the null hypothesis for factorsstated above.

In comparison of before treatment to after treatment, t calculatedis greater than t table. So, the effect of therapy is statistically significant on factor VAS. Between Trial Group and Control Group.

The Null Hypothesis, Ho: There is No significant difference in Trial Group and Control Groupon an average if factor VAS is considered. Vs. The Alternate Hypothesis, Ha There is significant difference in Trial Group and Control Group on an average if factor VAS is considered. The test used is Student unpaired t test for two unpaired samples. comparative efficacy of therapy on Abovestated factorsTrial Group Vs. Control Group.

Criteria	Mean Trial Group	Mean Control Group	Diff. between Mean(B-A) ± SEM	t value	P value	Sig.
VAS	2. 914	1. 429	1. 486 ±0. 3058	4. 858	<0. 0001	Yes

- Since the **P value is < 0. 05**, the level of significance for **factor VAS**.
- There is strong evidence to reject the null hypothesis for factorsstated above.
- In comparison of Trial group to Control group, t calculated isgreater than t table.
- So, the effect of therapy is statistically **significant** on **factor VAS.**

DISCUSSION

Osteoarthritis (OA) is a chronic degenerative disease in male while it affects female in younger age. Life style play major role in OA. In Osteoarthritis (Sandhigata Vata) pain, swelling, restricted movements of joints are common clinical features. The insidious starting

is with aching pain in the joint and relieved by the rest. The other associated symptom is stiffness, which aggravated after a long rest and subsides after by active movement. The present clinical study has been conducted to.

"A RANDOMIZED CONTROLLED TRIAL OF INDRAVARUNIMULADI CHURNA IN THE MANAGEMENT OF SANDHIGATA VATA W. S. R. TO OSTEOARTHRITIS."

On the analysis of results, individual assessment of procedures proved statistically significant results in most of the signs and symptoms of Janu Sandhigata Vata in both the drugs. On comparison between the drugs in trial and controlled group, showedthat While comparing the Trial group vs Control group, Therapy of Control group is more effective than trial group if factor *Jaanu Sandhi* General Function, VAS, WOMAC and Range of motion are consideredand for factor *Sandhi Stambha.* Therapy of Trial group is more effective than Control group.

Discussion of General observation

AGE

The above table reveals majority1. 4% comes under 21-40 age 18. 57% of patient comes under 31-40 years of age, 32. 8% comesunder 41-50 years of age, 31. 42% comes under 51-60 years and 15. 71% comes under 61-70 years of age.

GENDER

The above table reveals that majority of the patients are femalepatient's.

OCCUPATION WISE

The present study showed that maximum numbers of subjects were inLabour category 1. 4%, service category i. e. 35. 71 %, followed by Housewives patients were 54. 28% and Farmer 7. 1%.

***PRAKRUTI*WISE**

The present study showed that maximum number of patients i. e. 28. 57% were having Kapha–*Pitta Prakruti,* followed by 32. 85% were having *Kapha – vata*, 11% were having *vataKapha Prakruti,* 5. 7% were having *Pittavata Prakruti*, 10 % were having *Vata-Pitta Prakruti* and 20% were having *Pitta-Kapha Prakruti* **Religion wise** majority of the patients are hindu patient's 84. 28% and 15. 71% patients were muslim we can't make special

conclusion from this data because this occurrence is mainly due to demographic situation pertaining to this region.

***Akruti* wise**

The above data shows that the present study showed that 65. 71 % of the patients were having *Sthula Akruti* followed by 14. 28% having*Madhyam Akruti* & 14. 28% patients were having *krusha Akruti*.

***Agni* wise**

The data in above table represents that majority i. e 40% patients were having *Mandaagni* followed by *vishamaagni* were 11. 42% & 7. 14 % of patient were of *Tikshnagn* & 25. 71 % patient were of *samagni*.

***Kostha* wise**

The above data shows that majority 68% of the patients were having *Madhyam Koshtha* followed by 11. 42% having *Krura Koshtha* & 8. 57% patients were having *Mrudu* Koshtha.

DIET WISE

The above data shows that the present study depicts that maximum number of patients i.e. 69% were mixed vegetarian while rest of the patients i.e. 18.57% were having vegetarian diet.

ViharajHetu

The present study showed that maximum number of patients i.e. 24.28% were having diwaswap hetu, followed by 41.85% were having *Ratrijagran*, 12.85% were having *Avyayam*, 5.7% were having *Atichakraman hetu.*

***Chinta* wise**

The above data shows that the present study depicts that maximum number of patients i. e. 56. 85 % were having *Chinta* while rest of thepatients i. e. 28. 14 % were not having Chinta.

***Vyasan* wise**

Vyasana In our study, maximum no. of patients (22. 87%) was addicted to tobacco. 4. 2% were addicted to alcohol, 4. 2% were addicted to smoking, 35. 71% were addicted to Tea, 2. 85% were addicted to Coffee, And 14. 28% patients are addiction less. It suggests that increased intake of any addiction hampers the normalmetabolism (Dhatvagni) of the body.

Kulajhetu

In our study it was seen that 58. 57% patients having family history of OA and 41. 42% not having any family history of OA.

Discussion on selection of Study

The study was conducted in a pre-post evaluation method with an experimental and control group of total 70 subject of which randomly divided into Group A -35 patient & Group B-35 patient. Subjective and Objective parameters were assessed before and after the study. The study was carried out in the department of Kayachikitsa of our institute. Subjects of Sandhigatvaat were screened, irrespective of their sex, religion, socio-economic status and educational status. After screening those subjects who were enrolled in the study. Chief complaints, vitals, family history, history of any medication in the past were recorded as per the case record form. All the subjects were clinically examined by using Ayurvedic aswell as modern parameters. Some changes done in diet and excersise were advised. The study was carried out in Subjects of *Sandhigatvaat* in two Groups. Group A (Experimental) of 35 patient received *Indravaruni churna* and Group B (Control) of 35 patients received *Aabhadi churna*. Follow up at the 7 th, 14th, 21st, 28th, 35thday Final assessment at the end of the treatment after 35 days.

Discussion on Selection Drug

3drug present in *Indravaruni mool churna* (*Indravaruni mool, pimpli, gud)* in Experiental Group & 11 drug present in *Aabhadi churna (Babool, Rasna, Asgandha, Shatavari, Saunf, Hauber, Guduchi, Sontha, Ajmoda, Ajwain).* Raw materials were purchased from GMP approved pharmacy and preparation were made as stated above. Standardisation was made from Rasa Shastra Department after preparation of drug before the clinical trials were conducted. Churna were prepared in Rasa Shastra Department of Study Centre *Indravaruni mool churna-* The drugs will be prepared as stated in explained in the *RASARATNASAMUCHCHAYE* in 19th of *Adhyaya* "*Vatarogasamanyaupaya*. & *Abhadi churna*-The drugs will be prepared as stated in *YOGARATNAKAR* in *Purvaardha* of *Vatavyadhichikitsa Adhyaya*. given 5mg BD with Mandoushna jal After meal. Subjects were called upon Follow up at the 7 th, 14th, 21st, 28th, 35thday Final assessment at the end of the treatment after 28 days when called upon follow up were given general instruction regarding hygiene, diet, personal habits subjects were evaluated according to case record form attached to this dissertationannexture. These data obtained termed as AT (After treatment)value. And

action evaluated.

Discussion on probable mode of action

Most of these drugs are *Tikatakatu* rasa *ushnavirya* having property of *kaphavattasahamak.* Also *Guduchi* and *shunthi* is having a property of *shothahara* and *shholprasamana* due to this property it breaks the pathology of *Sandhigatvaat* and gives a best result. Conclusion :There is significant difference in Trial group and Control group on an average if factors *Sandhi Stambha, Jaanu Sandhi* General Function, VAS, WOMAC and Range of motion are considered. There is No significant difference in Trial group and Control group on an average if factors *Jaanu Sandhi Shoola, Akunchan Prasaran, Sparshasahatva, Jaanu Sandhi Shotha* and *Sandhi Sputana* are considered. As per the above statistical analysis, it is concluded that except Factor *Sparshasahatva* in Control group both Control group & Trial Group are effective in the management of *Sandhigata Vata*. While comparing the Trial group vs Control group, Therapy of Control group is more effective than trial group if factor *Jaanu Sandhi* General Function, VAS, WOMAC and Range of motion are consideredand for factor *Sandhi Stambha* Therapyof Trial group is more effective than Control group.

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