



A Randomized Comparative Clinical Study to Assess the Efficacy of *Tailadhara* and *Takradhara* in *Anidra* Pertaining to Patients of *Pakshaghatha*

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ABSTRACT

Shirodhara is one amongst the moordhni taila procedure. In the classics, there is an explanation regarding four types of moordhni taila like Shiro abhyanga, Shirodhara, shiropichu and shiro basti. These are the special treatment modalities told for the disorders of Shiras. In shirodhara, taila or any other drava dravya is made to oscillate over the shiras for a stipulated period in a rhythmic manner. Nidra is considered as one among the trayo upastamba i.e. the sub pillars which supports the life. Ayurveda explains about anidra or nidra nasha while explaining about vata vriddhi lakshana, pitta vriddhi lakshana and in vataja nanatmaja vikara. Sleep disorders in C.V.A. patients are common. There are some varieties of sleep disorders occurring in such patients are. Sleep disorders occurring in patients of pakshaghata are sleep apnea, daytime sleep and insomnia. In this study shankapushpi siddha taila dhara and takra dhara was performed to evaluate the efficacy in anidra pertaining to patients of pakshaghata. Assessment of sleep was done using the insomnia screening questioner, Athens insomnia scale and daily sleep diary assessment.

Key Words: Moordhni taila, Tailadhara, Takradhara, Anidra

INTRODUCTION

Ahara, nidra and brahmacharya are considered as the three supportive pillars of life¹. They will help to increase the bala, varna and upachaya till the end of the lifespan. Nidra is also considered as one of the adharaneeya vega. Dharana of nidra vega will result in jrumbha, angamarda, tandra, shiroroga and akshigaurava². Proper quantity and quality of nidra is essential for sustaining the life. Such nidra will help in sukha, Pushti, bala, vrishatha, jnanam, jivitham. If nidra is not of proper quantity and quality

it will result in *dukham, karshyam, abalam, klibata, ajnanam* and even death^{3.}

Nidra is a state of the body where in *jnanendriya*, *karmendriya* and *manas* gets exhausted and they dissociate themselves from their *vishaya*, which makes the individual to sleep ⁴·Sushruta Acharya explains that when *samjnavaha srotas* are filled with kapha and indriyas are deprived from their *indriyarthas* then the person goes to sleep. He also mentions the role of kapha and tamas in the *nidra utpatti* ⁵· According to Ashtanga sangraha, due to





avarana of srotas by kapha and also due to shrama of *jnanendriya* and *karmendriya* which results in dissociation of the senses resulting in *nidra* ⁶

DSM-5 defines insomnia disorder as dissatisfaction with sleep quality or quantity associated with one or more of the following symptoms. 1) Difficulty in initiating sleep 2) Difficulty in maintaining sleep with frequent awakening or problems returning to sleep 3) Early morning wakening with inability to return to sleep. The sleep disturbances may occur during the course of another mental disorder or medical condition, or it may occur independently. Ayurveda explains about *anidra* or *nidranasha* while explaining vata *vriddhi lakshana*, *pittavriddhi*

explaining vata *vriddhi lakshana*, *pittavriddhi* lakshana and also vataja nanatmaja vikaras. Acharya Charaka explains nidra and nidra nasha in the context of *ashtau ninditiya adhyaya*. Charaka included aswapna under 80 nanatmaja vikara but has not explained in chikitsa sthana ^{7.} Sushrutha Acharya explains nidranasha in garbhavyakarana shareera. He also explains *vaikarika nidra* in the same chapter along with chikitsa. Vagbhata in Ashtanga sangraha mentions in *viruddha annavijnaniya adhyaya* ^{8.}

Pakshaghata is also a vataja nanatmaja vikara. According to the National Stroke Association, more than one half of the stroke survivors experience sleep problem. Most important sleep disturbances occurring in stroke patients are sleep apnoea, insomnia and day time sleep. Researches also show that stroke patients are less likely to fall asleep during the day to compensate the loss of sleep during the night.

Different treatment modalities are explained for the treatment of anidra. *Moordhni taila* is one among

them⁹. Through the different procedures the oil is being anointed on the head of the patient is considered as *Moordhni taila*. It is of four types *Abhyanga*, *Seka*, *Pichu* and *Basti* ¹⁰. Shiras is considered to be the seat of prana. It is one of the *trimarma* and also a *dasha pranayatana*. It is considered as the *uttamanga* wherein all the indrivas are seated.

According to ancient Indian concept, purusha is compared to a tree having mula in the *urdhwa bhaga* and shakha in the *adho bhaga*. Here mula is understood as the head region which controls the remaining part of the body. This means that when the root of the tree is cut, then the tree cannot exist. Similarly, if the injury to the shiras occurs, then it may lead to the destruction of the body ^{10.} According to dhara kalpa, Shirodhara is indicated in burning sensation, swelling, discharge in the wounds ^{12.} According to Ashtanga hridaya, dhara is indicated in *arumshika*, *shirastoda*, *shirodhaha*, *paka* and *vrana*^{13.}

In this study, anidra occurring in the patients of pakshaghata were included for the study and were randomly divided into two groups. In the first group, *Shirodhara* with shankapushpi siddha taila was performed for a period of 30 minutes in a day for a total period of 7 days and in the second group, *Shirodhara* was performed with shankapushpi siddha takra.

AIMS AND OBJECTIVES

- 1) To evaluate the effect of shankapushpi siddha taila dhara in anidra pertaining to patients of pakshaghata.
- 2) To evaluate the effect of shankapushpi siddha





takra dhara in anidra pertaining to patients of pakshaghata.

3) To compare the effect of shankapushpi siddha taila dhara and shankapushpi siddha takra dhara in anidra pertaining to patients of pakshaghata.

MATERIALS AND METHODS

1. SOURCE OFDATA:

A minimum of 30 patients diagnosed with *Anidra* were selected for the study from IPD/OPD of Shri Dharmasthala Manjunatheshwara Ayurveda Hospital, Kuthpady, Udupi.

2. METHOD OF COLLECTION OF DATA:

It is a clinical study to compare the efficacy of shankapushpi siddha *taila dhara* and shankapushpi siddha *takra dhara* in *anidra* pertaining to patients of *pakshaghata* and for evaluation, a detailed proforma was prepared considering all the points pertaining to history, signs & symptoms and examinations as mentioned in our Ayurvedic classics and allied sciences to confirm the diagnosis and to evaluate the result of the therapy.

3. INCLUSION CRITERIA:

- Patients of both gender presenting with diagnostic criteria.
- Patients with chronicity of 1-6 months
- Patients fit for taila and takra dhara
- 4. EXCLUSION CRITERIA:
- Patients who were under sedatives
- Patients with aphasia
- Patients who were not fit for taila dhara and takra dhara

5. STUDY DESIGN:

This is an open label randomized comparative clinical study with pre-test and post-test design.

Selected 30 patients were randomly allotted into two groups 15 in each group based on the permuted block randomization method.

- Group A- Shankapushpi siddha taila dhara group.
- Group B-Shankapushpi siddha takra dhara group.

6. INVESTIGATIONS:

If necessary, routine haematological examinations, E.C.G were carried out.

7. DURATION OF THE STUDY:

- > Duration of treatment: 7 days
- > Duration of follow up: 7 days
- ➤ Total duration of the study: 14 days

8. INTERVENTION:

The selected patients were randomly allotted into two groups

Group A - Taila dhara group

Group B - Takra dhara group.

8.1. POORVA KARMA

A. Collection of materials: like *droni*, *dharapatra*, vessels, cotton pads, clothes etc.

B. Preparation of medicine:

500 ml of prepared taila was heated using double boiling method.

C. Preparation of the patient:

Patient was made to lie down in supine position; dhara patra was hanged to the dhara stand at a height of 4 angula above the fore head. Eyes were covered with cotton pad; ears were covered with cotton plug. A band was tied on the fore head at the level of eye brows.

2. PRADHANA KARMA





Oil which was heated by double boiling method was taken and added with the remaining oil, later the temperature was checked by dipping the finger in the oil. Then this oil was poured into the dhara patra slowly by covering the hole at the bottom. Then dharapatra was oscillated from right to left side in a rhythmic manner. Another vessel was placed at the head end to collect the used oil; this oil is again reheated and used. The procedure was continued for a period of 30 minutes.

3.PASCHAT KARMA:

After the dhara, excess oil was wiped off, eye pad and cotton pad was removed and was advised to take rest for a period of 10-15 minutes and asked to take bath with luke warm water.

TAKRA DHARA

Same procedure was followed as mentioned above, but takra was not heated.

FOLLOW UP

For 7 days.

Criteria for Assessment

- 1. Insomnia screening questionnaire
- 2. Daily sleep dairy: to assess the effect of treatment.
- 3. Athens insomnia scale
- 4. To give some objectivity to nidranasha, lakshana were scored based on standard scoring method and were assessed before treatment, after treatment and after follow up.
- 5. Blood pressure, respiratory rate and pulse rate was assessed before and after treatment.

OBSERVATION

In this study 30 patients of pakshaghata pertaining to anidra were included for the study and were randomly divided into two groups. Group A – shankapushpi siddha taila dhara group Group B- shankapushpi siddha takra dhara group.

Total number of patients registered for the study -32 Number of patients completed the study-30 Drop outs -2

Table 1 Demographic observations

Table I Demog	grapine observat	IOHS				
Parameter	Observation	in each	Maximum n	umber of	Percentage	
	parameter		patients			
	Group -A	Group -B	Group -A	Group -B	Group -A	Group -B
Age	60-70 years	60-70 years	8	13	53.3	43.3
Sex	Male	male	10	11	66.7	73.3
Occupation	Not working	Not working	8	11	53.3	73.3

Table 2 Observation related to disease

Maximum o	bservation	Number of j	patients	Percentage	
Group -A	Group -B	Group -A	Group -B	Group -A	Group -B
Left	Left	12	12	80	80
infract	infract	11	12	73.3	76.6
present	present	10	22	66.66	73.33
present	Present	5	9	33.33	30
present	present	6	11	40	36.66
	Group -A Left infract present present	Left Left infract infract present present present Present	Group -A Group -B Group -A Left Left 12 infract infract 11 present present 10 present Present 5	Group -A Group -B Group -A Group -B Left Left 12 12 infract 11 12 present present 10 22 present Present 5 9	Group -A Group -B Group -A Group -B Group -A Left Left 12 12 80 infract infract 11 12 73.3 present present 10 22 66.66 present Present 5 9 33.33

Improvement observed on various parameters of anidra treated with shankapushpi siddha tailadhara

Table 3 Angama	arda
Angamarda	Ne

Angamarda	Neg	gative ra	ank	Po	Positive rank			Total	Z	P	Inference
	N	MR	SR	N	MR	SR	_		value	value	
BT-AT	11	6	66	0	.00	.00	0	11	-3.12	0.002	S
AT-FU	8	4.50	36.00	0	.00	.00	3	11	-2.71	0.007	S





BT-FU	11	6.00	66.00	0	.00	.00	0	11	-3.02	0.003	S	
Table 4 Shir	rogauraya	1										
SHIROGA												
BT-AT	15	8.0	120	0	.00	.00	0	15	-3.48	0.000	HS	
AT-FU	9	5.00	45.0	0	.00	.00	6	15	-2.81	.005	S	
BT-FU	15	8.00	120	0	.00	.00	$\frac{0}{0}$	15	-3.54	.000	HS	
D1 -1 C	13	0.00	120		.00	.00		13	3.31	.000	110	
Table 5 Jrur	nbha											
JRUMBH												
BT-AT	14	7.50	105.0	0	.00	.00	0	14	-3.391	0.001	S	
AT-FU	10	5.50	55.00	0	.00	.00	4	14	-3.16	.002	S	
BT-FU	14	7.50	105.0	0	.00	.00	0	14	-3.49	.000	HS	
<u> </u>	17	7.50	103.0		.00	.00		17	3.47	.000	115	
Table 6 Jad	va											
JADYA	<i>,</i> u											
BT-AT	2	1.50	3.00	0	.00	.00	2	4	-1.414	0.157	NS	
AT-FU	1	1.00	1.00	0	.00	.00	3	4	-1.00	.317	NS	
BT-FU	3	2.00	6.00	0	.00	.00	1	4	-1.732		NS NS	
<u> </u>		2.00	0.00		.00	.00	1		-1.732	.003	110	
Table 7 -Gla	ani											
GLANI	A111											
BT-AT	9	5.00	45.0	0	.00	.00	0	9	-2.73	.006	S	
AT-FU	4	2.20	10.00	0	.00	.00	5	9	-2.00	.046	S	
BT-FU	9	5.00	45.00	0	.00	.00	$\frac{3}{0}$	9	-2.88	.004	S	
Б1-ГО	9	3.00	43.00	- 0	.00	.00	- 0	9	-2.88	.004	<u> </u>	
Table 8- Bh	rama											
Bhrama	1 allia											
	12	7.00	01.00		00	00		12	2 27	001	HC	
BT-AT	13	7.00	91.00	0	.00	.00	0	13	-3.27 -3.051	.001	HS	
AT-FU	10	5.50	55.00	0	.00	.00	3	13	- 1 (1)	.002	S	
DO DI												
BT-FU	13	7	91.00	0	.00	.00	0	13	-3.31	.001	HS	
	13											
Table 9 Tan	13 dra	7	91.00	0	.00	.00	0	13	-3.31	.001	HS	
Table 9 Tan	13 dra 4 2	.50 1	91.00 0.00 0	0	.00.	.00	0	13 4	-3.31 - 1.89	.001	HS NS	
Table 9 Tan BT-AT AT-FU	13 dra 4 2. 1 1.	7 .50 1	91.00 0.00 0 .00 0	.(00. 0. 0. 0. 0. 0. 0. 0.	.00 00 0 00 3	0	13 4 4	-3.31 -1.89 -1.00	.001 .059 0.317	NS NS	
Table 9 Tan	13 dra 4 2. 1 1.	7 .50 1	91.00 0.00 0	.(00. 0. 0. 0. 0. 0. 0. 0.	.00	0	13 4	-3.31 - 1.89	.001	HS NS	
Table 9 Tan BT-AT AT-FU BT-FU	13 dra 4 2. 1 1. 4 2.	7 .50 1	91.00 0.00 0 .00 0	.(00. 0. 0. 0. 0. 0. 0. 0.	.00 00 0 00 3	0	13 4 4	-3.31 -1.89 -1.00	.001 .059 0.317	NS NS	
Table 9 Tan BT-AT AT-FU BT-FU Table 10 Ap	13 dra 4 2. 1 1. 4 2.	7 .50 1	91.00 0.00 0 .00 0	.(00. 0. 0. 0. 0. 0. 0. 0.	.00 00 0 00 3	0	13 4 4	-3.31 -1.89 -1.00	.001 .059 0.317	NS NS	
Table 9 Tan BT-AT AT-FU BT-FU Table 10 Ap Apakthi	13 dra 4 2 1 1. 4 2. pakthi	7 .50 1 .00 1 .50 1	91.00 0.00 0 .00 0 0.0 0	0	.00. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	.00. 00 0 00 3 00 0	0	13 4 4 4	-3.31 -1.89 -1.00 -1.85	.001 .059 0.317 .063	NS NS NS	
Table 9 Tan BT-AT AT-FU BT-FU Table 10 Ap Apakthi BT-AT	13 dra 4 2 1 1 4 2 2 2 2 2 2 2 2 3 3 4 4 2 3 3 4 4 2 3 4 2 3 4 2 5 2 4 4 2 5 3 4 4 2 5 3 4 4 2 5 4 4 2 5 5 6 6 7 6 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7	7 .50 1 .00 1 .50 1	91.00 0.00 0 .00 0 0.0 0	0(00. 0. 00 0. 00 0. 00 0. 00 0. 00 0. 00 0. 00 0. 00 0. 00	.00.00 00 0 00 3 00 0	0	13 4 4 4	-3.31 -1.89 -1.00 -1.85	.001 .059 0.317 .063	NS NS NS	
Table 9 Tan BT-AT AT-FU BT-FU Table 10 Ap Apakthi BT-AT AT-FU	13 dra 4 2. 1 1. 4 2. pakthi 2 2.	7 .50 1 .50 1 .50 1 .50 1 .50	91.00 0.00 0 .00 0 0.0 0 3.00 3.00	0	00. 0. 0. 0. 0. 0. 0. 0. 0. 0.	.00 00 0 00 3 00 0	0	13 4 4 4 4	-3.31 -1.89 -1.00 -1.85	.001 .059 0.317 .063	NS NS NS NS	
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Table 9 Tan BT-AT AT-FU BT-FU Table 10 Ap Apakthi BT-AT AT-FU BT-FU Table 11 Ins Insomnia s BT-AT AT-FU BT-FU Table 12-tin Time for g BT-AT	13 dra 4 2. 1 1. 4 2. 2 2. 2 4 somnia sc screening 15 13 15 me for get setting sleet 15	7	91.00 0.00 0 0.00 0 0.00 0 3.00 10.00 g question 120.0 97.50 120.00 eep	0	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 00 0 00 3 00 0 .00 .00 .00 .00	0 3 3 3 3 4 4 4 4 4 0 1 0	13 4 4 4 4 6 6 6 6 15 15 15	-3.31 -1.89 -1.00 -1.85 -1.34 -1.414 -1.80 -3.62 -3.02 -3.68	.001 .059 0.317 .063 .180 .157 .058 .000 .001 .000	NS NS NS NS NS HS HS HS	
Table 9 Tan BT-AT AT-FU BT-FU Table 10 Ap Apakthi BT-AT AT-FU BT-FU Table 11 Ins Insomnia s BT-AT AT-FU BT-FU Table 12-tin Time for g BT-AT AT-FU	13 dra 4 2. 1 1. 4 2. pakthi 2 2 4 somnia sc screening 15 13 15 me for get setting sle 15 6	7	91.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0 	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 00 00 00 00 00 00 00 00 00 00 00 00	0 3 3 3 3 3 3 4 4 4 4 4 4 0 0 0 5 5 0 0 0 0 0 0 0 0 0	13 4 4 4 4 6 6 6 6 15 15 15 15	-3.31 -1.89 -1.00 -1.85 -1.34 -1.414 -1.80 -3.62 -3.02 -3.68 -3.45 -6.32	.001 .059 0.317 .063 .180 .157 .058 .000 .001 .000	HS NS NS NS NS NS HS HS HS NS	
Table 9 Tan BT-AT AT-FU BT-FU Table 10 Ap Apakthi BT-AT AT-FU BT-FU Table 11 Ins Insomnia s BT-AT AT-FU BT-FU Table 12-tir Time for g BT-AT AT-FU BT-FU BT-FU	13 dra 4 2. 1 1. 4 2. pakthi 2 2 4 somnia so screening 15 13 15 me for get setting sle 15 6 15	7 .50 1 .00 1 .50 1 .50 1 .50 2.50 creening questi 8.00 7.50 8.00 cting sleep 8.00 5.50 8.00	91.00 0.00 0 0.00 0 0.00 0 3.00 10.00 g question 120.0 97.50 120.00 eep	0	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 00 0 00 3 00 0 .00 .00 .00 .00	0 3 3 3 3 4 4 4 4 4 0 1 0	13 4 4 4 4 6 6 6 6 15 15 15	-3.31 -1.89 -1.00 -1.85 -1.34 -1.414 -1.80 -3.62 -3.02 -3.68	.001 .059 0.317 .063 .180 .157 .058 .000 .001 .000	NS NS NS NS NS HS HS HS	
Table 9 Tan BT-AT AT-FU BT-FU Table 10 Ap Apakthi BT-AT AT-FU BT-FU Table 11 Ins Insomnia s BT-AT AT-FU BT-FU Table 12-tin Time for g BT-AT AT-FU BT-FU Table 13 Slo	13 dra 4 2. 1 1. 4 2. 2 2 4 somnia screening 15 13 15 me for get getting sle 15 6 15 eep interr	7 .50 1 .00 1 .50 1 .50 1 .50 2.50 creening questi 8.00 7.50 8.00 cting sleep 8.00 5.50 8.00	91.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0 	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 00 00 00 00 00 00 00 00 00 00 00 00	0 3 3 3 3 3 3 4 4 4 4 4 4 0 0 0 5 5 0 0 0 0 0 0 0 0 0	13 4 4 4 4 6 6 6 6 15 15 15 15	-3.31 -1.89 -1.00 -1.85 -1.34 -1.414 -1.80 -3.62 -3.02 -3.68 -3.45 -6.32	.001 .059 0.317 .063 .180 .157 .058 .000 .001 .000	HS NS NS NS NS NS HS HS HS NS	
Table 9 Tan BT-AT AT-FU BT-FU Table 10 Ap Apakthi BT-AT AT-FU BT-FU Table 11 Ins Insomnia s BT-AT AT-FU BT-FU Table 12-tin Time for g BT-AT AT-FU BT-FU Table 13 Sleep inter	13 dra 4 2. 1 1. 4 2. 2 2 4 somnia so screening 15 13 15 me for get setting sleeting sleetin	7 -50 1 -00 1 -50 1 -50 1 -50 1 -50 1 -50 2.50 creening questi 8.00 7.50 8.00 cting sleep 8.00 5.50 8.00 uption	91.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00	0 3 3 4 4 4 4 4 0 1 0 5 0	13 4 4 4 4 4 6 6 6 6 15 15 15 15	-3.31 -1.89 -1.00 -1.85 -1.34 -1.414 -1.80 -3.62 -3.02 -3.68 -3.45 -6.32 -3.771	.001 .059 0.317 .063 .180 .157 .058 .000 .001 .000	NS NS NS NS NS NS NS NS HS HS HS	
Table 9 Tan BT-AT AT-FU BT-FU Table 10 Ap Apakthi BT-AT AT-FU BT-FU Table 11 Ins Insomnia s BT-AT AT-FU BT-FU Table 12-tin Time for g BT-AT AT-FU BT-FU Table 13 Sleep inter BT-AT	13 dra 4 2. 1 1. 4 2. 2 2 4 somnia so screening 15 13 15 me for get setting sleeting sleetin	7 50 1 00 1 50 1 50 1 1.50 1.50 2.50 creening g questi 8.00 7.50 8.00 cting sleep 8.00 5.50 8.00 uption	91.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00	0 3 3 4 4 4 4 4 0 1 0 0	13 4 4 4 4 4 15 15 15 15 15 15	-3.31 -1.89 -1.00 -1.85 -1.34 -1.414 -1.80 -3.62 -3.62 -3.68 -3.45 -6.32 -3.771 -3.50	.001 .059 0.317 .063 .180 .157 .058 .000 .001 .000 .001 .527 .000	HS NS NS NS NS NS HS HS HS HS HS	
Table 9 Tan BT-AT AT-FU BT-FU Table 10 Ap Apakthi BT-AT AT-FU BT-FU Table 11 Ins Insomnia s BT-AT AT-FU BT-FU Table 12-tin Time for g BT-AT AT-FU BT-FU Table 13 Sle Sleep inter BT-AT AT-FU	13 dra 4 2. 1 1. 4 2. 2 2 4 somnia sc screening 15 13 15 me for get setting sle 15 6 15 eep interr rruption 15 8	7 1.50 1.50 1.50 1.50 2.50 2.50 2.50 2.50 2.50 2.50 2.50 8.00 2.50 8.00 2.50 8.00 2.50 8.00 2.50 8.00 2.50	91.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0 .(.) .(.) 0 0 0 1 0	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00	0 3 3 4 4 4 4 4 0 1 0 0 5 0 0	13 4 4 4 4 4 6 6 6 6 15 15 15 15 15 15	-3.31 -1.89 -1.00 -1.85 -1.34 -1.414 -1.80 -3.62 -3.62 -3.62 -3.711 -3.50 -2.33	.001 .059 0.317 .063 .180 .157 .058 .000 .001 .000 .001 .527 .000 .000 .000 .000	HS NS NS NS NS NS NS HS HS HS HS S S	
Table 9 Tan BT-AT AT-FU BT-FU Table 10 Ap Apakthi BT-AT AT-FU BT-FU Table 11 Ins Insomnia s BT-AT AT-FU BT-FU Table 12-tin Time for g BT-AT AT-FU BT-FU Table 13 Sleep inter BT-AT	13 dra 4 2. 1 1. 4 2. 2 2 4 somnia so screening 15 13 15 me for get setting sleeting sleetin	7 50 1 00 1 50 1 50 1 1.50 1.50 2.50 creening g questi 8.00 7.50 8.00 cting sleep 8.00 5.50 8.00 uption	91.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0	.00 .00 .00 .00 .00 .00 .00 .00 .00 .00	.00 .00 .00 .00 .00 .00 .00 .00	0 3 3 3 3 3 3 4 4 4 4 4 4 0 0 0 0 0 0 0	13 4 4 4 4 4 4 6 6 6 6 15 15 15 15 15 15 15	-3.31 -1.89 -1.00 -1.85 -1.34 -1.414 -1.80 -3.62 -3.62 -3.68 -3.45 -6.32 -3.771 -3.50	.001 .059 0.317 .063 .180 .157 .058 .000 .001 .000 .001 .527 .000 .020 .000	HS NS NS NS NS NS NS NS HS HS HS HS HS	



Table 14-wake up time



F.AT	Wake up tin	10										
F.FU			7.50	105.0	0	00	00	1	1.5	2 27	001	TIC
C-FU 15												
Fig. 1												
F-AT 13 7.00 91.00 0 .00 .00 2 15 -3.27 .001 HS	<u> </u>	15	8.00	120.00	0	.00	.00	0	15	-353	.000	HS
Fr-AT			day									
F.FU	Naps during	day										
Fig. 15	BT-AT	13	7.00	91.00	0	.00	.00	2	15	-3.27	.001	HS
Part	AT-FU	9	5.00	45.00	0	.00	.00	6	15	-3.00	.003	S
Fig. 1	BT-FU	15	8.00	120.00	0	.00	.00	0	15	-3.531	.000	HS
Fig. 1	able 16- feel	during	dav									
Fig. 1	Feel during											
T-FU	BT-AT	15	8.00		0	.00			15	-3.49	.000	HS
Color To Duration of Sleep Color To State To	AT-FU	9	5.61	50.50	1	4.50	4.50	5	15	-2.48	.013	S
Traction of sleep	BT-FU	15	8.00	120.00	0	.00	.00	0	15	-3.53	.000	HS
T-AT	able 17 Dura	ation of	sleep									
F-FU 13 7.50 97.50 1 7.50 7.50 1 15 -3.20 .001 HS F-FU 15 8.00 120.00 0 .00 .00 0 15 -3.71 .000 HS Ole 18 Athens insomnia scale	Duration of	sleep										
F-FU	BT-AT	15			0			0				
Color Colo	AT-FU				1							
Part 15	BT-FU	15	8.00	120.00	0	.00	.00	0	15	-3.71	.000	HS
Part 15	able 18 Athe	ens inso	mnia sc	ale								
F-FU 13 7.50 97.50 1 7.50 7.50 1 15 -3.20 .001 HS F-FU 15 8.00 120.00 0 .00 .00 0 15 -3.68 .000 HS F-FU 15 8.00 120.00 0 .00 .00 0 15 -3.68 .000 HS F-FU 15 8.00 120.00 0 .00 .00 0 15 -3.68 .000 HS F-FU 13 7.00 91.00 0 .00 .00 0 13 -3.28 .00 HS F-FU 13 7.00 91.00 0 .00 .00 7 13 -3.28 .00 HS F-FU 13 7.00 91.00 0 .00 .00 0 13 -3.35 .001 HS F-FU 13 7.00 91.00 0 .00 .00 0 13 -3.35 .001 HS F-FU 13 7.00 91.00 0 .00 .00 0 13 -3.35 .001 HS F-FU 15 8.00 120.00 0 .00 .00 0 15 -3.52 .000 HS F-FU 15 8.00 120.0 0 .00 .00 0 15 -3.57 .000 HS F-FU 15 8.00 120.0 0 .00 .00 0 15 -3.57 .000 HS F-FU 15 8.00 120.0 0 .00 .00 0 15 -3.57 .000 HS F-FU 15 8.00 120.0 0 .00 .00 0 15 -3.57 .000 HS F-FU 16 8.00 120.0 0 .00 .00 0 15 -3.57 .000 HS F-FU 17 9 5.00 45.00 0 .00 .00 0 1 12 -2.23 .025 S F-FU 11 6.00 66.00 0 .00 .00 1 12 -3.022 .003 S F-FU 5 3.00 15.00 0 .00 .00 1 12 -3.022 .003 S F-FU 5 3.00 15.00 0 .00 .00 5 -2.12 .034 S F-FU 2 1.50 3.00 0 .00 .00 .00 3 5 -2.12 .034 S F-FU 5 3.00 15.00 0 .00 .00 5 -2.12 .034 S F-FU 5 3.00 15.00 0 .00 .00 5 -2.17 .038 S F-FU 5 3.00 15.00 0 .00 .00 5 -2.07 .038 S	Athens insor	nnia sc	ale									
T-FU					^	$\Omega\Omega$	00	0	15	-3.62	.000	HS
Provement observed on various parameters of anidra treated with shankapushpi siddha tandle 19- Angamarda	BT-AT	15	8.00	120.00	U	.00	.00	-				
Provement observed on various parameters of anidra treated with shankapushpi siddha tandle 19- Angamarda	BT-AT AT-FU	13	7.50	97.50	1	7.50	7.50	1	15	-3.20		
F-FU 6 3.50 21.00 0 .00 .00 7 13 -2.33 .020 S F-FU 13 7.00 91.00 0 .00 .00 0 13 -3.35 .001 HS F-FU 13 7.00 91.00 0 .00 .00 0 13 -3.35 .001 HS F-AT 15 8.00 120.00 0 .00 .00 0 15 -3.52 .000 HS F-FU 7 4.00 28.00 0 .00 .00 8 15 -2.53 .011 S F-FU 15 8.00 120.0 0 .00 .00 0 15 -3.57 .000 HS F-FU 15 8.00 120.0 0 .00 .00 0 15 -3.57 .000 HS F-FU 5 3.00 15.00 0 .00 .00 3 12 -2.88 .004 S F-FU 5 3.00 15.00 0 .00 .00 7 12 -2.23 .025 S F-FU 11 6.00 66.00 0 .00 .00 1 12 -3.022 .003 S F-FU 2 1.50 3.00 0 .00 .00 3 5 -2.12 .034 S F-FU 2 1.50 3.00 0 .00 .00 .00 3 5 -2.12 .034 S F-FU 5 3.00 15.00 0 .00 .00 3 5 -1.414 .157 NS F-FU 5 3.00 15.00 0 .00 .00 3 5 -2.07 .038 S	AT-FU BT-FU mprovement	13 15 observ	7.50 8.00 red on v	97.50 120.00	0	7.50	7.50	1 0	15 15	-3.20 -3.68	.000	HS
T-FU	AT-FU BT-FU mprovement able 19- Ang Angamarda	13 15 observ gamarda	7.50 8.00 red on v	97.50 120.00 rarious pa	0	7.50 .00	7.50 .00	1 0 a trea	15 15 ated with	-3.20 -3.68 shankapu	.000 shpi sid e	HS dha tak
Cole 20 - Shirogaurava	AT-FU BT-FU mprovement able 19- Ang Angamarda BT-AT	13 15 observ gamarda	7.50 8.00 red on v	97.50 120.00 rarious pa	1 0	7.50 .00 neters of	7.50 .00 f anidr	1 0 a trea	15 15 ated with	-3.20 -3.68 shankapu -3.28	.000 shpi side	HS dha tak
T-AT 15 8.00 120.00 0 .00 0 0 15 -3.52 .000 HS T-FU 7 4.00 28.00 0 .00 .00 8 15 -2.53 .011 S T-FU 15 8.00 120.0 0 .00 .00 0 15 -3.57 .000 HS T-FU 15 8.00 120.0 0 .00 .00 0 15 -3.57 .000 HS T-FU 15 8.00 120.0 0 .00 .00 3 12 -2.88 .004 S T-AT 9 5.00 45.00 0 .00 .00 7 12 -2.23 .025 S T-FU 11 6.00 66.00 0 .00 .00 1 12 -3.022 .003 S T-FU 2 1.50 3.00 0 .00 .00 3 5 -1.414 .157 NS T-FU 5 3.00 15.00 0 .00 .00 3 5 -1.414 .157 NS T-FU 5 3.00 15.00 0 .00 .00 0 5 -2.07 .038 S T-FU 5 3.00 15.00 0 .00 .00 0 5 -2.07 .038 S T-FU 5 3.00 15.00 0 .00 .00 0 5 -2.07 .038 S T-FU 5 3.00 15.00 0 .00 .00 0 5 -2.07 .038 S T-FU 5 3.00 15.00 0 .00 .00 0 5 -2.07 .038 S T-FU 5 3.00 15.00 0 .00 .00 0 5 -2.07 .038 S T-FU 5 3.00 15.00 0 .00 .00 0 5 -2.07 .038 S T-FU 5 3.00 15.00 0 .00 .00 0 5 -2.07 .038 S	AT-FU BT-FU mprovement able 19- Ang Angamarda BT-AT	13 15 observ gamarda 13 6	7.50 8.00 red on v	97.50 120.00 rarious pa	1 0 ram	7.50 .00 neters of	7.50 .00 f anidr	1 0 a trea	15 15 ated with	-3.20 -3.68 shankapu -3.28	.000 shpi side	HS dha tak
T-AT 15 8.00 120.00 0 .00 .00 0 15 -3.52 .000 HS T-FU 7 4.00 28.00 0 .00 .00 8 15 -2.53 .011 S T-FU 15 8.00 120.0 0 .00 .00 8 15 -3.57 .000 HS Ole 21- Jrumbha T-AT 9 5.00 45.00 0 .00 .00 3 12 -2.88 .004 S T-FU 5 3.00 15.00 0 .00 .00 7 12 -2.23 .025 S T-FU 11 6.00 66.00 0 .00 .00 1 12 -3.022 .003 S Ole 22-Jadya dya T-AT 5 3.00 15.00 0 .00 .00 0 5 -2.12 .034 S T-FU 2 1.50 3.00 0 .00 .00 3 5 -1.414 .157 NS T-FU 5 3.00 15.00 0 .00 .00 0 5 -2.07 .038 S T-FU 5 3.00 15.00 0 .00 .00 0 5 -2.07 .038 S	AT-FU BT-FU mprovement Table 19- Ang Angamarda BT-AT AT-FU	13 15 observ gamarda 13 6	7.50 8.00 red on v	97.50 120.00 arious pa 91.00 21.00	1 0 eram 0 0	7.50 .00 .00 .00	7.50 .00 f anidr .00	1 0 a trea	15 15 ated with	-3.20 -3.68 shankapu -3.28 -2.33	.000 shpi side .00 .020	HS dha tak HS S
T-FU	AT-FU BT-FU mprovement Table 19- Ang Angamarda BT-AT AT-FU BT-FU	13 15 observ gamarda 13 6 13	7.50 8.00 red on v 7.00 3.50 7.00	97.50 120.00 arious pa 91.00 21.00	1 0 eram 0 0	7.50 .00 .00 .00	7.50 .00 f anidr .00	1 0 a trea	15 15 ated with	-3.20 -3.68 shankapu -3.28 -2.33	.000 shpi side .00 .020	HS dha tak HS S
T-FU 15 8.00 120.0 0 .00 .00 0 15 -3.57 .000 HS	AT-FU BT-FU mprovement Table 19- Ang Angamarda BT-AT AT-FU BT-FU Table 20- Shin Shirogauray	13 15 cobserved gamarda 13 6 13	7.50 8.00 red on v 7.00 3.50 7.00	97.50 120.00 arious pa 91.00 21.00 91.00	1 0 eram 0 0	7.50 .00 .00 .00	7.50 .00 f anidr .00	1 0 a trea	15 15 ated with	-3.20 -3.68 shankapu -3.28 -2.33	.000 shpi side .00 .020 .001	HS dha tak HS S
Solition Color C	AT-FU BT-FU mprovement Table 19- Ang Angamarda BT-AT AT-FU BT-FU Table 20- Shir	13 15 cobserved gamarda 13 6 13	7.50 8.00 red on v 7.00 3.50 7.00	97.50 120.00 arious pa 91.00 21.00 91.00	1 0 aram 0 0 0	7.50 .00 .00 .00 .00	7.50 .00 ? anidr .00 .00	1 0 a trea	15 15 ated with 13 13 13	-3.20 -3.68 shankapu -3.28 -2.33 -3.35	.000 shpi side .00 .020 .001	HS dha tak HS S HS
T-AT 9 5.00 45.00 0 .00 .00 3 12 -2.88 .004 S T-FU 5 3.00 15.00 0 .00 .00 7 12 -2.23 .025 S T-FU 11 6.00 66.00 0 .00 .00 1 12 -3.022 .003 S Sole 22-Jadya dya T-AT 5 3.00 15.00 0 .00 .00 0 5 -2.12 .034 S T-FU 2 1.50 3.00 0 .00 .00 3 5 -1.414 .157 NS T-FU 5 3.00 15.00 0 .00 .00 0 5 -2.07 .038 S Sole 23-Glani ani	AT-FU BT-FU mprovement Table 19- Ang Angamarda BT-AT AT-FU BT-FU Table 20- Shin Shirogauray	13 15 observ gamarda 13 6 13 rogaurar a	7.50 8.00 red on v 7.00 3.50 7.00 va	97.50 120.00 rarious pa 91.00 21.00 91.00	1 0 1 0 0 0 0	7.50 .00 .00 .00 .00 .00	7.50 .00 ? anidr .00 .00 .00 .000	1 0 a trea 0 7 0	15 15 ated with 13 13 13	-3.20 -3.68 shankapu -3.28 -2.33 -3.35	.000 shpi side .00 .020 .001	HS HS S HS HS
T-AT 9 5.00 45.00 0 .00 .00 3 12 -2.88 .004 S T-FU 5 3.00 15.00 0 .00 .00 7 12 -2.23 .025 S T-FU 11 6.00 66.00 0 .00 .00 1 12 -3.022 .003 S Ple 22-Jadya dya T-AT 5 3.00 15.00 0 .00 .00 0 5 -2.12 .034 S T-FU 2 1.50 3.00 0 .00 .00 3 5 -1.414 .157 NS T-FU 5 3.00 15.00 0 .00 .00 5 -2.07 .038 S Ple 23-Glani ani	MT-FU BT-FU mprovement Table 19- Ang Angamarda BT-AT AT-FU BT-FU Table 20- Shin Shirogaurav BT-AT AT-FU	13 15 observ gamarda 13 6 13 rogaurar ra 15	7.50 8.00 red on v 7.00 3.50 7.00 va 8.00 4.00	97.50 120.00 arious pa 91.00 21.00 91.00 120.00 28.00	1 0 0 0 0 0	7.50 .00 .00 .00 .00 .00	7.50 .00 .00 .00 .00 .000	1 0 a trea 0 7 0	15 15 16 with 13 13 13 15 15	-3.20 -3.68 shankapu -3.28 -2.33 -3.35	.000 shpi side .00 .020 .001 .000 .011	HS HS S HS S S S S S S S S S S S S S S
T-FU 5 3.00 15.00 0 .00 .00 7 12 -2.23 .025 S T-FU 11 6.00 66.00 0 .00 .00 1 12 -3.022 .003 S Ple 22-Jadya dya T-AT 5 3.00 15.00 0 .00 .00 0 5 -2.12 .034 S T-FU 2 1.50 3.00 0 .00 .00 3 5 -1.414 .157 NS T-FU 5 3.00 15.00 0 .00 .00 0 5 -2.07 .038 S Ple 23-Glani ani	MT-FU BT-FU mprovement Table 19- Ang Angamarda BT-AT AT-FU BT-FU Table 20- Shin Shirogaurav BT-AT AT-FU BT-FU	13 15 cobserve gamarda 13 6 13 rogaura ra 15 7	7.50 8.00 red on v 7.00 3.50 7.00 va 8.00 4.00	97.50 120.00 arious pa 91.00 21.00 91.00 120.00 28.00	1 0 0 0 0 0	7.50 .00 .00 .00 .00 .00	7.50 .00 .00 .00 .00 .000	1 0 a trea 0 7 0	15 15 16 with 13 13 13 15 15	-3.20 -3.68 shankapu -3.28 -2.33 -3.35	.000 shpi side .00 .020 .001 .000 .011	HS HS S HS S S S S S S S S S S S S S S
T-FU 11 6.00 66.00 0 .00 .00 1 12 -3.022 .003 S ple 22-Jadya dya T-AT 5 3.00 15.00 0 .00 .00 0 5 -2.12 .034 S T-FU 2 1.50 3.00 0 .00 .00 3 5 -1.414 .157 NS T-FU 5 3.00 15.00 0 .00 .00 0 5 -2.07 .038 S ple 23-Glani ani	MT-FU BT-FU mprovement Table 19- Ang Angamarda BT-AT AT-FU BT-FU Table 20- Shin Shirogaurav BT-AT AT-FU BT-FU	13 15 cobserve gamarda 13 6 13 rogaura ra 15 7	7.50 8.00 red on v 7.00 3.50 7.00 va 8.00 4.00	97.50 120.00 arious pa 91.00 21.00 91.00 120.00 28.00	1 0 0 0 0 0	7.50 .00 .00 .00 .00 .00	7.50 .00 .00 .00 .00 .000	1 0 a trea 0 7 0	15 15 16 with 13 13 13 15 15	-3.20 -3.68 shankapu -3.28 -2.33 -3.35	.000 shpi side .00 .020 .001 .000 .011	HS HS S HS S S S S S S S S S S S S S S
ole 22-Jadya dya F-AT 5 3.00 15.00 0 .00 .00 0 5 -2.12 .034 S F-FU 2 1.50 3.00 0 .00 .00 3 5 -1.414 .157 NS F-FU 5 3.00 15.00 0 .00 0 5 -2.07 .038 S	AT-FU BT-FU mprovement Table 19- Ang Angamarda BT-AT AT-FU BT-FU Table 20- Shin Shirogaurav BT-AT AT-FU BT-FU BT-FU	13 15 cobservery gamarda 13 6 13 rogaurar 7 15 7 15 mbha	7.50 8.00 7.00 3.50 7.00 4.00 8.00	97.50 120.00 21.00 91.00 91.00 120.00 28.00 120.0	0 0 0 0 0	7.50 .00 .00 .00 .00 .00	7.50 .00 .00 .00 .00 .000	1 0 a trea 0 7 0 0 8 0	15 15 115 113 113 113 113 115 115	-3.20 -3.68 shankapu -3.28 -2.33 -3.35 -3.52 -2.53 -3.57	.000 shpi side .00 .020 .001 .000 .011 .000	HS HS S HS S HS
dya Γ-AT 5 3.00 15.00 0 .00 .00 0 5 -2.12 .034 S Γ-FU 2 1.50 3.00 0 .00 .00 3 5 -1.414 .157 NS Γ-FU 5 3.00 15.00 0 .00 0 5 -2.07 .038 S	AT-FU BT-FU mprovement Table 19- Ang Angamarda BT-AT AT-FU Table 20- Shin Shirogaurav BT-AT AT-FU BT-FU Cable 21- Jrun Jrumbha	13 15 cobservery gamarda 13 6 13 rogaurar 7 15 7 15 mbha	7.50 8.00 7.00 3.50 7.00 4.00 8.00 5.00	97.50 120.00 21.00 91.00 91.00 120.00 28.00 120.0	0 0 0 0 0	7.50 .00 .00 .00 .00 .00	7.50 .00 .00 .00 .00 .00 .00	1 0 a trea 0 7 0 0 8 0	15 15 15 113 13 13 13 15 15 15	-3.20 -3.68 shankapu -3.28 -2.33 -3.35 -3.52 -2.53 -3.57	.000 .000 .020 .001 .000 .011 .000	HS HS S HS S HS
dya Γ-AT 5 3.00 15.00 0 .00 .00 0 5 -2.12 .034 S Γ-FU 2 1.50 3.00 0 .00 .00 3 5 -1.414 .157 NS Γ-FU 5 3.00 15.00 0 .00 0 5 -2.07 .038 S	MT-FU BT-FU mprovement Table 19- Ang Angamarda BT-AT AT-FU Table 20- Shin Shirogaurav BT-AT AT-FU BT-FU Table 21- Jrun Jrumbha BT-AT	13 15 observ gamarda 13 6 13 rogaurara 15 7 15 mbha	7.50 8.00 7.00 3.50 7.00 4.00 8.00 5.00 3.00	97.50 120.00 21.00 91.00 91.00 120.00 28.00 120.0 45.00 15.00	0 0 0 0 0 0	7.50 .00 .00 .00 .00 .00 .00	7.50 .00 .00 .00 .00 .00 .00 .00	1 0 a trea 0 7 0 8 0	15 15 15 113 13 13 13 15 15 15 15	-3.20 -3.68 shankapu -3.28 -2.33 -3.35 -3.52 -2.53 -3.57	.000 .000 .020 .001 .000 .011 .000	HS HS S HS S HS S S S
Γ-AT 5 3.00 15.00 0 .00 .00 0 5 -2.12 .034 S Γ-FU 2 1.50 3.00 0 .00 .00 3 5 -1.414 .157 NS Γ-FU 5 3.00 15.00 0 .00 0 5 -2.07 .038 S sole 23-Glani ani	MT-FU BT-FU mprovement Table 19- Ang Angamarda BT-AT AT-FU BT-FU Table 20- Shin Shirogaurav BT-AT AT-FU BT-FU Table 21- Jrun Jrumbha BT-AT AT-FU BT-FU BT-FU	13 15 cobserve gamarda 13 6 13 rogaura ra 15 7 15 mbha	7.50 8.00 7.00 3.50 7.00 4.00 8.00 5.00 3.00	97.50 120.00 21.00 91.00 91.00 120.00 28.00 120.0 45.00 15.00	0 0 0 0 0 0	7.50 .00 .00 .00 .00 .00 .00	7.50 .00 .00 .00 .00 .00 .00 .00	1 0 a trea 0 7 0 8 0	15 15 15 113 13 13 13 15 15 15 15	-3.20 -3.68 shankapu -3.28 -2.33 -3.35 -3.52 -2.53 -3.57	.000 .000 .020 .001 .000 .011 .000	HS HS S HS S HS S S S
T-FU 2 1.50 3.00 0 .00 .00 3 5 -1.414 .157 NS T-FU 5 3.00 15.00 0 .00 .00 0 5 -2.07 .038 S Dle 23-Glani ani	MT-FU BT-FU mprovement Table 19- Ang Angamarda BT-AT AT-FU BT-FU Table 20- Shin Shirogaurav BT-AT AT-FU BT-FU Table 21- Jrun Jrumbha BT-AT AT-FU BT-FU Sable 21- Jrun Jrumbha BT-AT AT-FU BT-FU	13 15 cobserve gamarda 13 6 13 rogaura ra 15 7 15 mbha	7.50 8.00 7.00 3.50 7.00 4.00 8.00 5.00 3.00	97.50 120.00 21.00 91.00 91.00 120.00 28.00 120.0 45.00 15.00	0 0 0 0 0 0	7.50 .00 .00 .00 .00 .00 .00	7.50 .00 .00 .00 .00 .00 .00 .00	1 0 a trea 0 7 0 8 0	15 15 15 113 13 13 13 15 15 15 15	-3.20 -3.68 shankapu -3.28 -2.33 -3.35 -3.52 -2.53 -3.57 -2.88 -2.23	.000 .000 .020 .001 .000 .011 .000	HS HS S HS S HS S S S
F-FU 5 3.00 15.00 0 .00 .00 0 5 -2.07 .038 S ple 23-Glani ani	MT-FU BT-FU mprovement Table 19- Ang Angamarda BT-AT AT-FU BT-FU Table 20- Shin Shirogaurav BT-AT AT-FU BT-FU Table 21- Jrun Jrumbha BT-AT AT-FU BT-FU Cable 22-Jady Jadya	13 15 cobserve gamarda 13 6 13 rogaurav 15 7 15 mbha 9 5 11	7.50 8.00 7.00 3.50 7.00 4.00 8.00 5.00 3.00 6.00	97.50 120.00 arious pa 91.00 21.00 91.00 120.00 28.00 120.0 45.00 15.00 66.00	0 0 0 0 0 0 0	7.50 .00 .00 .00 .00 .00 .00	7.50 .00 .00 .00 .00 .00 .00 .00	1 0 a trea 0 7 0 8 0	15 15 115 113 113 113 115 115 115 115 11	-3.20 -3.68 shankapu -3.28 -2.33 -3.35 -3.52 -2.53 -3.57 -2.88 -2.23 -3.022	.000 .000 .020 .001 .000 .011 .000 .004 .025 .003	HS HS S HS S S S S S
ole 23-Glani ani	MT-FU BT-FU mprovement Table 19- Ang Angamarda BT-AT AT-FU Table 20- Shin Shirogaurav BT-AT AT-FU BT-FU Table 21- Jrun Jrumbha BT-AT AT-FU BT-FU Table 22-Jady Jadya BT-AT	13 15 cobserved gamarda 13 6 13 rogaurar 2 15 7 15 mbha 9 5 11 ra 5	7.50 8.00 7.00 3.50 7.00 4.00 4.00 8.00 5.00 3.00 6.00	97.50 120.00 arious pa 91.00 21.00 91.00 120.00 28.00 120.0 45.00 15.00 66.00	0 0 0 0 0 0 0	7.50 .00 .00 .00 .00 .00 .00	7.50 .00 .00 .00 .00 .00 .00 .00 .00	1 0 a trea 0 7 0 8 0	15 15 15 113 13 13 13 15 15 15 15 12 12 12	-3.20 -3.68 shankapu -3.28 -2.33 -3.35 -3.52 -2.53 -3.57 -2.88 -2.23 -3.022	.000 .000 .020 .001 .000 .011 .000 .004 .025 .003	HS HS S HS S S S S
ani	MT-FU BT-FU mprovement Table 19- Ang Angamarda BT-AT AT-FU Table 20- Shin Shirogaurav BT-AT AT-FU BT-FU Table 21- Jrun Jrumbha BT-AT AT-FU BT-FU ST-FU BT-FU ST-FU BT-FU ST-FU	13 15 cobserved gamarda 13 6 13 7 15 7 15 7 15 mbha 9 5 11 7 2	7.50 8.00 7.00 3.50 7.00 4.00 8.00 5.00 3.00 6.00	97.50 120.00 21.00 91.00 21.00 91.00 120.00 28.00 120.0 45.00 15.00 66.00	0 0 0 0 0 0 0	7.50 .00 .00 .00 .00 .00 .00 .00 .00	7.50 .00 .00 .00 .00 .00 .00 .00 .00	1 0 a trea 0 7 0 8 0	15 15 15 113 13 13 13 15 15 15 15 15 15 15	-3.20 -3.68 shankapu -3.28 -2.33 -3.35 -3.52 -2.53 -3.57 -2.88 -2.23 -3.022 -2.12 -1.414	.000 .000 .000 .000 .001 .000 .011 .000 .004 .025 .003	HS HS S HS S S S S NS
	MT-FU BT-FU mprovement Table 19- Ang Angamarda BT-AT AT-FU BT-FU Table 20- Shin Shirogaurav BT-AT AT-FU BT-FU Table 21- Jrun Jrumbha BT-AT AT-FU BT-FU Table 22-Jady Jadya BT-AT AT-FU BT-FU Table 25-Jady Jadya BT-AT AT-FU BT-FU	13 15 cobserve gamarda 13 6 13 rogaurar 15 7 15 mbha 9 5 11 ra 5 2 5	7.50 8.00 7.00 3.50 7.00 4.00 8.00 5.00 3.00 6.00	97.50 120.00 21.00 91.00 21.00 91.00 120.00 28.00 120.0 45.00 15.00 66.00	0 0 0 0 0 0 0	7.50 .00 .00 .00 .00 .00 .00 .00 .00	7.50 .00 .00 .00 .00 .00 .00 .00 .00	1 0 a trea 0 7 0 8 0	15 15 15 113 13 13 13 15 15 15 15 15 15 15	-3.20 -3.68 shankapu -3.28 -2.33 -3.35 -3.52 -2.53 -3.57 -2.88 -2.23 -3.022 -2.12 -1.414	.000 .000 .000 .000 .001 .000 .011 .000 .004 .025 .003	HS HS S HS S S S S NS
1-A1 11 0.00 00.00 U .00 .00 5 14 -2.99 .003 S	MT-FU BT-FU mprovement Table 19- Ang Angamarda BT-AT AT-FU BT-FU Table 20- Shin Shirogaurav BT-AT AT-FU BT-FU Table 21- Jrun Jrumbha BT-AT AT-FU BT-FU Table 22-Jady Jadya BT-AT AT-FU BT-FU Table 23-Glar	13 15 15 16 18 18 18 18 18 18 18 18 18 18 18 18 18	7.50 8.00 7.00 3.50 7.00 4.00 8.00 5.00 3.00 6.00	97.50 120.00 21.00 91.00 21.00 91.00 120.00 28.00 120.0 45.00 15.00 66.00	0 0 0 0 0 0 0	7.50 .00 .00 .00 .00 .00 .00 .00 .00	7.50 .00 .00 .00 .00 .00 .00 .00 .00	1 0 a trea 0 7 0 8 0	15 15 15 113 13 13 13 15 15 15 15 15 15 15	-3.20 -3.68 shankapu -3.28 -2.33 -3.35 -3.52 -2.53 -3.57 -2.88 -2.23 -3.022 -2.12 -1.414	.000 .000 .000 .000 .001 .000 .011 .000 .004 .025 .003	HS HS S HS S S S S NS
No. 10th 2000 W. I. 12 Jan 12	AT-FU BT-FU mprovement able 19- Ang Angamarda BT-AT AT-FU BT-FU able 20- Shin Shirogaurav BT-AT AT-FU able 21- Jrun Jrumbha BT-AT AT-FU BT-FU able 22-Jady Jadya BT-AT AT-FU BT-FU able 23-Glar Glani	13 15 cobserve gamarda 13 6 13 rogaurar 15 7 15 mbha 9 5 11 ra 5 2 5 ni	7.50 8.00 7.00 3.50 7.00 8.00 4.00 8.00 5.00 3.00 6.00 3.00 3.00 3.00	97.50 120.00 arious pa 91.00 21.00 91.00 120.00 28.00 120.0 45.00 15.00 66.00 15.00 3.00 15.00	0 0 0 0 0 0 0 0	7.50 .00 .00 .00 .00 .00 .00 .00 .00 .00	7.50 .00 .00 .00 .00 .00 .00 .00 .00 .00	1 0 a trea 0 7 0 8 0 3 7 1	15 15 115 115 113 113 113 115 115 115 11	-3.20 -3.68 shankapu -3.28 -2.33 -3.35 -3.52 -2.53 -3.57 -2.88 -2.23 -3.022 -2.12 -1.414 -2.07	.000 .000 .000 .000 .001 .000 .011 .000 .004 .025 .003	HS dha tak HS S HS S S S NS S





AT-FU	7	4.00	28.00	0	.00	.00	7	14	-2.64	.008	S
BT-FU	13	7.00	91.00	0	.00	.00	1	14	-3.27	.001	HS
Table 24 Bhrai	ma										
Bhrama											
BT-AT	11	6.00	66.00	0	.00	.00	1	12	-3.03	.002	S
AT-FU	5	3.00	15.00	0	.00	.00	7	12	-2.12	.034	S
BT-FU	12	6.50	78.00	0	.00	.00	0	12	-3.14	.002	S
Table 25 Tand	ra										
Tandra											
BT-AT	2	1.50	3.00	0	.00	.00	1	3	-1.414	.157	NS
AT-FU	1	1.00	1.00	0	.00	.00	2	3	-1.00	.317	NS
BT-FU	3	2.00	6.00	0	.00	.00	0	3	-1.73	.083	NS
Table 26 Apak	thi										
Apakthi											
BT-AT	2	1.50	3.00	0	.00	.00	4	6	-1.41	.157	NS
AT-FU	3	2.00	6.00	0	.00	.00	3	6	-1.732	.083	NS
BT-FU	4	2.50	10.00	0	.00	.00	2	6	-1.890	.059	NS
Table 27-Insor	nnia sc	reening	question	naire							
Insomnia			_								
screening											
questionnair	e										
BT-AT	14	7.50	105.00	0	.00	.00	1	15	-3.74	.000	HS
AT-FU	6	3.50	21.00	0	.00	.00	9	15	-2.44	.014	S
					.00	.00	1	15	-3.39	.001	HS
BT-FU	14	7.50	105.00	0	.uu	.00					
BT-FU	14	7.50	105.00	0	.00	.00	1		3.37	.001	
				0	.00	.00	1		3.37	.001	
Table 28 Time	for ge	tting sle		0	.00	.00	1		3.37	.001	
Table 28 Time Time for gett	for ge	tting sle	ер								
Table 28 Time Time for gett BT-AT	for get ing sle	etting sle	120.00	0	.00	.00	0	15	-3.50	.000	HS
Table 28 Time Time for gett BT-AT AT-FU	for get ing sle 15	ep 8.00 4.50	120.00 22.50	0 3	.00	.00	0	15 15	-3.50 707	.000	HS NS
Table 28 Time Time for gett BT-AT	for get ing sle	etting sle	120.00	0	.00	.00	0	15	-3.50	.000	HS
Table 28 Time Time for gett BT-AT AT-FU BT-FU	for gering sleen 15 5 15	eep 8.00 4.50 8.00	120.00 22.50	0 3	.00	.00	0	15 15	-3.50 707	.000	HS NS
Table 28 Time Time for gett BT-AT AT-FU BT-FU Table 29 Sleep	for geting sleen 15 5 15 interru	eep 8.00 4.50 8.00	120.00 22.50	0 3	.00	.00	0	15 15	-3.50 707	.000	HS NS
Table 28 Time Time for gett BT-AT AT-FU BT-FU Table 29 Sleep Sleep interru	for get ing sle 15 5 15 interru	8.00 4.50 8.00	120.00 22.50 120.00	0 3 0	.00 4.50 .00	.00 13.50 .00	0 7 0	15 15 15	-3.50 707 -3.49	.000 .480 .000	HS NS HS
Table 28 Time Time for gett BT-AT AT-FU BT-FU Table 29 Sleep Sleep interru BT-AT	for gering sleen 15 5 15 o interruption 14	8.00 4.50 8.00 uption	120.00 22.50 120.00	0 3 0	.00 4.50 .00	.00 13.50 .00	0 7 0	15 15 15	-3.50 707 -3.49	.000 .480 .000	HS NS HS
Table 28 Time Time for gett BT-AT AT-FU BT-FU Table 29 Sleep Sleep interru BT-AT AT-FU	for ge ing sle 15 5 15 interre ption 14 7	tting sle tep 8.00 4.50 8.00 uption 7.50 4.00	120.00 22.50 120.00 105.0 28.00	0 3 0	.00 4.50 .00	.00 13.50 .00	0 7 0	15 15 15 15	-3.50 707 -3.49 -3.63 -2.64	.000 .480 .000 .000	HS NS HS
Table 28 Time Time for gett BT-AT AT-FU BT-FU Table 29 Sleep Sleep interru BT-AT	for gering sleen 15 5 15 o interruption 14	8.00 4.50 8.00 uption	120.00 22.50 120.00	0 3 0	.00 4.50 .00	.00 13.50 .00	0 7 0	15 15 15	-3.50 707 -3.49	.000 .480 .000	HS NS HS
Table 28 Time Time for gett BT-AT AT-FU BT-FU Table 29 Sleep Sleep interru BT-AT AT-FU BT-FU	for gering sleen 15	8.00 4.50 8.00 4.50 8.00 4.50 4.00 7.50	120.00 22.50 120.00 105.0 28.00	0 3 0	.00 4.50 .00	.00 13.50 .00	0 7 0	15 15 15 15	-3.50 707 -3.49 -3.63 -2.64	.000 .480 .000 .000	HS NS HS
Table 28 Time Time for gett BT-AT AT-FU BT-FU Table 29 Sleep Sleep interru BT-AT AT-FU BT-FU Table 30 Wake	for gering sleen 15	8.00 4.50 8.00 4.50 8.00 4.50 4.00 7.50	120.00 22.50 120.00 105.0 28.00	0 3 0	.00 4.50 .00	.00 13.50 .00	0 7 0	15 15 15 15	-3.50 707 -3.49 -3.63 -2.64	.000 .480 .000 .000	HS NS HS
Table 28 Time Time for gett BT-AT AT-FU BT-FU Table 29 Sleep Sleep interru BT-AT AT-FU BT-FU Table 30 Wake Wake up	for gering sleen 15	8.00 4.50 8.00 4.50 8.00 4.50 4.00 7.50	120.00 22.50 120.00 105.0 28.00	0 3 0	.00 4.50 .00	.00 13.50 .00	0 7 0	15 15 15 15	-3.50 707 -3.49 -3.63 -2.64	.000 .480 .000 .000	HS NS HS
Table 28 Time Time for gett BT-AT AT-FU BT-FU Table 29 Sleep Sleep interru BT-AT AT-FU BT-FU Table 30 Wake Wake up time	for gering sleen 15 5 15 15 interruption 14 7 14 e up time	7.50 4.00 7.50	120.00 22.50 120.00 105.0 28.00 105.0	0 3 0	.00 4.50 .00 .00 .00 .00	.00 13.50 .00 .00 .00	0 7 0 1 8 1	15 15 15 15 15 15 15	-3.50 707 -3.49 -3.63 -2.64 -3.39	.000 .480 .000 .000 .008 .001	HS NS HS HS
Table 28 Time Time for gett BT-AT AT-FU BT-FU Table 29 Sleep Sleep interru BT-AT AT-FU BT-FU Table 30 Wake Wake up time BT-AT	for gering sleen 15 5 15 15 interror ption 14 7 14 e up tim	7.50 7.50	120.00 22.50 120.00 105.0 28.00 105.0	0 3 0 0 0	.00 4.50 .00 .00 .00 .00	.00 13.50 .00 .00 .00 .00	0 7 0 1 8 1	15 15 15 15 15 15 15	-3.50 707 -3.49 -3.63 -2.64 -3.39	.000 .480 .000 .000 .008 .001	HS NS HS HS HS
Table 28 Time Time for gett BT-AT AT-FU BT-FU Table 29 Sleep Sleep interru BT-AT AT-FU BT-FU Table 30 Wake Wake up time BT-AT AT-FU	for ger ing sle 15 5 15 interre ption 14 7 14 e up tin	7.50 3.00	120.00 22.50 120.00 105.0 28.00 105.0 105.0 15.00	0 3 0 0 0 0	.00 4.50 .00 .00 .00 .00	.00 13.50 .00 .00 .00 .00	0 7 0 1 8 1	15 15 15 15 15 15 15 15	-3.50 707 -3.49 -3.63 -2.64 -3.39	.000 .480 .000 .000 .008 .001	HS NS HS HS S HS
Table 28 Time Time for gett BT-AT AT-FU BT-FU Table 29 Sleep Sleep interru BT-AT AT-FU BT-FU Table 30 Wake Wake up time BT-AT	for gering sleen 15 5 15 15 interror ption 14 7 14 e up tim	7.50 7.50	120.00 22.50 120.00 105.0 28.00 105.0	0 3 0 0 0	.00 4.50 .00 .00 .00 .00	.00 13.50 .00 .00 .00 .00	0 7 0 1 8 1	15 15 15 15 15 15 15	-3.50 707 -3.49 -3.63 -2.64 -3.39	.000 .480 .000 .000 .008 .001	HS NS HS HS HS
Table 28 Time Time for gett BT-AT AT-FU BT-FU Table 29 Sleep Sleep interru BT-AT AT-FU BT-FU Table 30 Wake Wake up time BT-AT AT-FU BT-FU BT-FU	for gering sle 15 5 15 interru ption 14 7 14 e up tin 14 5 15	7.50 4.00 7.50 8.00 8.00	120.00 22.50 120.00 105.0 28.00 105.0 105.0 15.00	0 3 0 0 0 0	.00 4.50 .00 .00 .00 .00	.00 13.50 .00 .00 .00 .00	0 7 0 1 8 1	15 15 15 15 15 15 15 15	-3.50 707 -3.49 -3.63 -2.64 -3.39	.000 .480 .000 .000 .008 .001	HS NS HS HS S HS
Table 28 Time Time for gett BT-AT AT-FU BT-FU Table 29 Sleep Sleep interru BT-AT AT-FU BT-FU Table 30 Wake Wake up time BT-AT AT-FU BT-FU Table 31 Naps	for gering sleen	7.50 4.00 7.50 8.00 7.50 4.00 7.50 4.00 7.50	120.00 22.50 120.00 105.0 28.00 105.0 105.0 15.00 120.0	0 3 0 0 0 0	.00 4.50 .00 .00 .00 .00 .00	.00 13.50 .00 .00 .00 .00	0 7 0 1 8 1 1 10 0	15 15 15 15 15 15 15 15 15	-3.50 707 -3.49 -3.63 -2.64 -3.39 -3.55 -2.23 -3.52	.000 .480 .000 .008 .001	HS NS HS HS S HS
Table 28 Time Time for gett BT-AT AT-FU BT-FU Table 29 Sleep Sleep interru BT-AT AT-FU BT-FU Table 30 Wake Wake up time BT-AT AT-FU BT-FU Table 31 Naps BT-AT	for gering sleen 15	7.50 4.00 7.50 8.00 7.50 4.00 7.50 6.50	120.00 22.50 120.00 105.0 28.00 105.0 15.00 120.0	0 3 0 0 0 0	.00 4.50 .00 .00 .00 .00 .00	.00 13.50 .00 .00 .00 .00 .00	0 7 0 1 8 1 1 10 0	15 15 15 15 15 15 15 15 15	-3.50 707 -3.49 -3.63 -2.64 -3.39 -3.55 -2.23 -3.52	.000 .480 .000 .000 .008 .001	HS NS HS HS S HS HS HS
Table 28 Time Time for gett BT-AT AT-FU BT-FU Table 29 Sleep Sleep interru BT-AT AT-FU BT-FU Table 30 Wake Wake up time BT-AT AT-FU BT-FU Table 31 Naps BT-AT AT-FU	for gering sleen 15	7.50 4.00 7.50 3.00 8.00 4.50 4.50 4.50 4.50 7.50 4.00 7.50 4.00 7.50 4.00 7.50 4.00 7.50 4.00	120.00 22.50 120.00 105.0 28.00 105.0 15.00 120.0 78.00 36.00	0 3 0 0 0 0 0	.00 4.50 .00 .00 .00 .00 .00	.00 13.50 .00 .00 .00 .00 .00	0 7 0 1 8 1 1 10 0	15 15 15 15 15 15 15 15 15	-3.50 707 -3.49 -3.63 -2.64 -3.39 -3.55 -2.23 -3.52 -3.52	.000 .480 .000 .000 .008 .001	HS NS HS HS S HS
Table 28 Time Time for gett BT-AT AT-FU BT-FU Table 29 Sleep Sleep interru BT-AT AT-FU BT-FU Table 30 Wake Wake up time BT-AT AT-FU BT-FU Table 31 Naps BT-AT	for gering sleen 15	7.50 4.00 7.50 8.00 7.50 4.00 7.50 6.50	120.00 22.50 120.00 105.0 28.00 105.0 15.00 120.0	0 3 0 0 0 0	.00 4.50 .00 .00 .00 .00 .00	.00 13.50 .00 .00 .00 .00 .00	0 7 0 1 8 1 1 10 0	15 15 15 15 15 15 15 15 15	-3.50 707 -3.49 -3.63 -2.64 -3.39 -3.55 -2.23 -3.52	.000 .480 .000 .000 .008 .001	HS NS HS HS S HS HS HS
Table 28 Time Time for gett BT-AT AT-FU BT-FU Table 29 Sleep Sleep interru BT-AT AT-FU BT-FU Table 30 Wake Wake up time BT-AT AT-FU BT-FU Table 31 Naps BT-AT AT-FU BT-FU	for general for ge	7.50 4.00 7.50 3.00 8.00 4.50 8.00 7.50 4.00 7.50 8.00	120.00 22.50 120.00 105.0 28.00 105.0 15.00 120.0 78.00 36.00	0 3 0 0 0 0 0	.00 4.50 .00 .00 .00 .00 .00	.00 13.50 .00 .00 .00 .00 .00	0 7 0 1 8 1 1 10 0	15 15 15 15 15 15 15 15 15	-3.50 707 -3.49 -3.63 -2.64 -3.39 -3.55 -2.23 -3.52 -3.52	.000 .480 .000 .000 .008 .001	HS NS HS HS S HS
Table 28 Time Time for gett BT-AT AT-FU BT-FU Table 29 Sleep Sleep interru BT-AT AT-FU BT-FU Table 30 Wake Wake up time BT-AT AT-FU BT-FU Table 31 Naps BT-AT AT-FU BT-FU Table 32 Feel	for general for ge	7.50 4.00 7.50 3.00 8.00 4.50 8.00 7.50 4.00 7.50 8.00	120.00 22.50 120.00 105.0 28.00 105.0 15.00 120.0 78.00 36.00	0 3 0 0 0 0 0	.00 4.50 .00 .00 .00 .00 .00	.00 13.50 .00 .00 .00 .00 .00	0 7 0 1 8 1 1 10 0	15 15 15 15 15 15 15 15 15	-3.50 707 -3.49 -3.63 -2.64 -3.39 -3.55 -2.23 -3.52 -3.52	.000 .480 .000 .000 .008 .001	HS NS HS HS S HS
Table 28 Time Time for gett BT-AT AT-FU BT-FU Table 29 Sleep Sleep interru BT-AT AT-FU BT-FU Table 30 Wake Wake up time BT-AT AT-FU BT-FU Table 31 Naps BT-AT AT-FU BT-FU Table 32 Feel of Feel during	for general for ge	7.50 4.00 7.50 3.00 8.00 4.50 8.00 7.50 4.00 7.50 8.00	120.00 22.50 120.00 105.0 28.00 105.0 15.00 120.0 78.00 36.00	0 3 0 0 0 0 0	.00 4.50 .00 .00 .00 .00 .00	.00 13.50 .00 .00 .00 .00 .00	0 7 0 1 8 1 1 10 0	15 15 15 15 15 15 15 15 15	-3.50 707 -3.49 -3.63 -2.64 -3.39 -3.55 -2.23 -3.52 -3.52	.000 .480 .000 .000 .008 .001	HS NS HS HS S HS
Table 28 Time Time for gett BT-AT AT-FU BT-FU Table 29 Sleep Sleep interru BT-AT AT-FU BT-FU Table 30 Wake Wake up time BT-AT AT-FU BT-FU Table 31 Naps BT-AT AT-FU BT-FU Table 32 Feel of Feel during day	for gering sleen 15	7.50 4.00 7.50 3.00 8.00 4.50 8.00 7.50 4.00 7.50 4.00 7.50 4.00 7.50 4.00 7.50 4.00 8.00	120.00 22.50 120.00 105.0 28.00 105.0 15.00 120.0 78.00 36.00 120.0	0 3 0 0 0 0 0	.00 4.50 .00 .00 .00 .00 .00	.00 13.50 .00 .00 .00 .00 .00	0 7 0 1 8 1 1 10 0	15 15 15 15 15 15 15 15 15	-3.50 707 -3.49 -3.63 -2.64 -3.39 -3.55 -2.23 -3.52 -3.52	.000 .480 .000 .008 .001 .000 .025 .000	HS NS HS HS S HS HS HS HS HS
Table 28 Time Time for gett BT-AT AT-FU BT-FU Table 29 Sleep Sleep interru BT-AT AT-FU BT-FU Table 30 Wake Wake up time BT-AT AT-FU BT-FU Table 31 Naps BT-AT AT-FU BT-FU Table 32 Feel of Feel during day BT-AT	for gering sleen 15	7.50 3.00 8.00 7.50 3.00 8.00 4.50 8.00 7.50 4.00 7.50 4.00 7.50 4.00 7.50 6.50 4.50 8.00	120.00 22.50 120.00 105.0 28.00 105.0 15.00 120.0 78.00 78.00	0 3 0 0 0 0 0	.00 4.50 .00 .00 .00 .00 .00 .00	.00 13.50 .00 .00 .00 .00 .00 .00	0 7 0 1 8 1 1 10 0	15 15 15 15 15 15 15 15 15 15	-3.50 707 -3.49 -3.63 -2.64 -3.39 -3.55 -2.23 -3.52 -3.52 -3.48	.000 .480 .000 .000 .008 .001 .000 .025 .000	HS NS HS HS S HS HS HS HS HS HS
Table 28 Time Time for gett BT-AT AT-FU BT-FU Table 29 Sleep Sleep interru BT-AT AT-FU BT-FU Table 30 Wake Wake up time BT-AT AT-FU BT-FU Table 31 Naps BT-AT AT-FU BT-FU Table 32 Feel of Feel during day	for gering sleen 15	7.50 4.00 7.50 3.00 8.00 4.50 8.00 7.50 4.00 7.50 4.00 7.50 4.00 7.50 4.00 7.50 4.00 8.00	120.00 22.50 120.00 105.0 28.00 105.0 15.00 120.0 78.00 36.00 120.0	0 3 0 0 0 0 0	.00 4.50 .00 .00 .00 .00 .00	.00 13.50 .00 .00 .00 .00 .00	0 7 0 1 8 1 1 10 0	15 15 15 15 15 15 15 15 15	-3.50 707 -3.49 -3.63 -2.64 -3.39 -3.55 -2.23 -3.52 -3.52	.000 .480 .000 .008 .001 .000 .025 .000	HS NS HS HS S HS HS HS HS HS





Duration of			leep										
sleep	"												
BT-AT		14	7.50	105.0	0	.00	.00	1	15 -	3.63	.000	HS	
AT-FU			3.00	15.00	0	.00	.00			2.23	.025	S	
BT-FU		14	7.50	105.00	0	.00	.00			3.39	.001	HS	
T-1-1-24 A4				1.									
Table 34 At Athens	nens 11	nsom	ınıa sca	ie									
insomnia													
scale													
BT-AT		14	7.50	105.00	0	.00	.00	1	15 -	3.63	.000	HS	
AT-FU	5	5	3.00	15.00	0	.00	.00			2.26	.025	S	
BT-FU	1	14	7.50	105.0	0	.00	.00	1	15 -	3.39	.001	HS	
Comparing	the in	nnra	vemeni	t of vario	iic r	aramei	ters of a	nidra ni	n hoth gr	nine			
Fable 35 Ar			Venicin	or vario	us p	arame	1C15 01 a	mara o	i both giv	лир з			
Angamard	la N		Group-	Group		Mean		Sum		U	\mathbf{Z}	P	
		A		В		ank		rank					
BT-AT	24			13		13.82	11.38	152.00	148.00	57.00	-1.06	.286	N.
AT-FU	24			13		10.86	13.88	119.5.	180.50	53.50	-1.16	.245	N:
BT-FU	24	4 1	1	13		12.09	12.85	133.00	167.00	67.00	326	.744	N:
Гable 36 Sh	irogau	rava											
shirogaura	ıva												
BT-AT		30		15 15	5.70	15.30	235.5	0 229	50 109	14	.88	7 NS	5
AT-FU		30			1.33	16.67	215.0	00 250	00 95.0	080)3 .42	2 NS	5
BT-FU		30	15	15 14	1.17	16.83	212.5	50 252	50 92.5	0 -1.0)3 .29	9 NS	5
Γable 37 Jrι	ımhha												
Jrumbha	iiiioiia												
BT-AT	26	14	12	13.7	5	13.21	192.50	158.50	80.50	024	.83	38 N	S
AT-FU	26	14	12	11.7		15.58	164.00	187.00		-1.50			S
BT-FU	26	14	12	12.0		15.21	168.50	182.50					
Fable 20 Io	1												
Fable 38 Jac Jadya	ıya												
BT-AT	9	4	5	6.50		3.80	26.00	19.00	4.00	-1.75	.079	NS	
AT-FU	9	4	5	5.38		4.70	21.50	23.50	8.50	447			
BT-FU	9	4	5	6.75		3.60	27.00	18.00	3.00	.917	.005		
Fakla 20 Cl	:												
<u>Fable 39 Gl</u> Glani	am												
BT-AT	23	9	14	11.2	<u>R</u>	12.48	101.50	174.50	56.00	442	.658	NS	
AT-FU	23	9	14	12.3		11.75	111.50	164.50					
BT-FU	23	9	14	11.6		12.25	104.50	171.50					
				1110		12.20	10.100	171100	27.000		, .,	110	
Гable 40 Вł	rama												
Bhrama	25	1.2	10	11.0	-2	14.12	155.50	1.00 5	0 64.50	2 04	1 400	NTC A	
BT-AT	25	13	12	11.90		14.13	155.50						
AT-FU	25	13	12	11.80		15.08	144.00						
BT-FU	25	13	12	10.27	<u> </u>	15.69	133.50	191.5	0 42.50	0 -2.2	6 .024	- S	
Table 41 Ta	nara												
Tandra BT-AT	7	4	3	2 25		5.00	12.00	15.00	3.00	1 22	107	NIC	
DI-AI				3.25		5.00 3.83	13.00		5.500	-1.32 -2.24		NS NS	
AT-FU	7	4	3	4.13		⊀ X'≺	16 50	11.05	7 71111				

3

BT-FU

3.25

5.00

13.00

15.00

3.00

.180

-1.34





Table 42 Ap	akthi										
Apakthi	- 10					20.00	40.00	15.00	100	0.45	
BT-AT	12	6	6	6.33	6.67	38.00	40.00	17.00	192		NS NG
AT-FU BT-AT	12	6	6	7.00	6.00	42.00	40.00	15.00	561		NS NC
B1-A1	12	6	6	6.33	6.67	38.00	40.00	17.00	192	.847	NS
Table 43 I.S	.Q										
I.S.Q	20	1.5	1.5	12.60	17.40	204.00	261.00	04.00	2.002	0.45	MC
BT-AT	30	15	15	13.60	17.40	204.00	261.00	84.00	-2.003	.045	NS
AT-FU	30	15 15	15 15	12.30	18.70 19.73	184.50	280.50	64.500 49.00	-2.363	.018	S
BT-FU	30	13	13	11.27	19.73	169.00	296.00	49.00	-3.105	.002	<u>s</u>
Table 44 Tii	ne for	gettin	g sleep								
BT-AT	30	15	15	13.43	17.57	201.50	263.50	81.500	-1.409	.159	NS
AT-FU	30	15	15	15.43	15.57	231.50	233.50	111.50	044	.024	S
BT-FU	30	15	15	12.70	18.30	190.50	274.50	70.500	-2.253	.965	NS
Table 45 Sle	ep int	errupti	on								
Sleep interruption	n										
BT-AT	3(0 15	15	11.77	19.23	176.50	288.50	56.500	-2.822	.005	S
AT-FU	30	0 15	15	15.27	15.73	229.00	236.00	109.00	165	.869	NS
BT-FU	30	0 15	15	12.20	18.80	183.00	282.00	63.00	-2.557	.011	S
Table 46 Wa Wake up time	ake up	time									
BT-AT	30	15	15	13.50	17.50	202.50	262.50	82.500	-1.492	.136	NS
AT-FU	30	15	15	14.33	16.67	215.00	250.00	95.00	828	.407	NS
BT-FU	30	15	15	12.10	18.90	181.50	283.50	61.500	-2.388	.017	S
Table 47 Na	ps dur	ing da	у								
Naps during day											
BT-AT	30	15	15	13.07	17.93	196.00	269.00	76.00	-1.67	.094	NS
AT-FU	30	15	15	15.60	15.40	234.00	231.00	111.00	-0.070	.944	NS
BT-FU	30	15	15	13.33	17.67	200.00	265.00	80.00	-1.485	.138	NS
Table 48 Fe	el duri	ng day	7								
Feel during day											
BT-AT	30	15	15	12.60	18.40	189.00	276.00	69.00	-2.02	.042	S
AT-FU	30	15	15	15.80	15.20	237.00	228.00	108.00	207	.836	NS
BT-FU	30	15	15	12.97	18.03	194.50	270.50	74.500	-1.887	.059	NS
Гable 49-Du	ration	of slee	ер								
BT-AT	30	15	15	14.57	16.43	218.50	246.50	98.500	984	.325	NS
AT-FU	30	15	15	11.83	19.17	177.50	287.50	57.500	-2.660	.008	S
BT-FU	30	15	15	11.47	19.53	172.00	293.00	52.00	-3.049	.002	S
Table 50 At											
BT-AT	30	15	15	14.10	16.90	211.50	253.50	91.500	-1.345	.179	NS
AT-FU	30	15	15	11.83	19.17	177.50	287.50	57.500	-2.660	.008	S
BT- FU	30	15	15	11.27	19.73	169.00	296.00	49.00	-3.105	.002	S





RESULTS

In angamarda tailadhara group shows significant result and in takra dhara group shows highly significant result. (table 3, table 19)

In shirogaurava tailadhara group shows highly significant result after treatment and after follow up and in takra dhara group shows highly significant result. (table4, table 20)

In jrumbha tailadhara group shows significant result after treatment and in takra dhara group also shows significant result. (table5, table-21)

In bhrama tailadhara group shows highly significant result after treatment and in takra dhara group shows significant result. (table-8, table-24)

In tandra tailadhara group shows non-significant result after treatment and in takra dhara group also shows non-significant result. (table9, table-25)
In apakthi tailadhara group shows non-significant result after treatment and in takra dhara group shows non-significant result. (table 10, table 26)
In I.S.Q tailadhara group shows highly significant result after and in takra dhara group shows highly significant result after and in takra dhara group shows highly significant result. (table 11, table 27)

In time for getting sleep tailadhara group shows highly significant result after treatment and in takra dhara group also shows highly significant result. (table 12, table 28)

In sleep interruption tailadhara group shows highly significant result after treatment and in takra dhara group also shows highly significant result. (table 13, table 29)

In wake-up time tailadhara group shows highly significant result after treatment and in takra

dhara group shows highly significant result. (table 14, table 30)

In naps during day tailadhara group shows highly significant result and in takra dhara group shows highly significant result. (table 15, table 31)

In feel during day tailadhara group shows highly significant result and in takra dhara group shows highly significant result. (table 16, table 32)

In Duration of sleep tailadhara group shows highly significant result and in takra dhara group shows highly significant result. (table 17, table 33)

In Athens insomnia scale tailadhara group shows highly significant result and in takra dhara group shows highly significant result. (table 18, table 34)

DISCUSSION

MODE OF ACTION OF SHIRODHARA

Shirodhara is a procedure wherein continuous pouring of medicated liquids over the fore head for a stipulated period of time was considered. In present work, shankapushpi siddha taila and shankapushpi siddha takra was selected for the study separately as well as to compare the efficacy of both.

Continuous pouring of taila over the fore head for specific period of time produces a tranquilizing effect and induces good sleep. Studies were conducted to find whether absorption of the drug was possible through skin. These experiments depict that skin is impermeable to watery solutions of salts or other substance. It has on the other hand been shown that it is possible to produce a certain amount of absorption by





application of substances conveyed through fatty vehicles. According to modern science, local application of ointment may pass through the stratum corneum into the blood vessel and produce desirable effect by reaching the target organ.

Continuous pouring of oil in relaxed and comfortable position had an additional effect which can be compared to cradling of a mother. This acts as sedative and gives soothing effect for brain and results in good sleep.

Studies are conducted to show the effect of Shirodhara, which can be explained on the basis of penetration effect, stimulation effect and relaxation effect.

Penetration effect: During the continuous pouring of liquid over the forehead, there is penetration of the drug through the skin. The degree of the penetration depends on the density and consistency of the drugs. Certain amount of drug absorption is possible when they are in lipid media.

Stimulating effect:

Any substance falling from a certain height possesses a potential energy and this energy will be converted into kinetic energy according to the law of conservation of energy. If the height remains the same then the potential energy depends on the mass of the substance i.e. if more is the mass of the substance then more will be the energy possessed by the substance.

Relaxing effect

Continuous pouring of oil in relaxed and comfortable position had an additional effect which can be compared to cradling of a mother. This will have a sedative and soothing effect for brain which results in sleep.

Here drug of choice was shankapushpi and the drug itself was having the properties of nidra janaka and had the medhya effect. Ayurveda explains that dravyas used for abhyanga, avagaha, pralepa, parisheka undergo paka with the help of bhrajaka pitta and the virya of a drug is absorbed through the romakupa, dhamani and circulated all over the body. Here also by the action of the bhrajaka pitta, virya of the drug was absorbed. Here both shankapushpi siddha taila dhara and shankapushpi siddha takra dhara was effective. But when comparing the effect of both the groups,

taila dhara group showed better results when compared to the takra dhara group. In takra dhara group after follow up there was recurrence of some of the symptoms in some patients.

CONCLUSION

Anidra in pakshaghata patients is a common occurrence, pakshaghata is a vataja nanatmaja vikara. Anidra will commonly seen in vata vriddhi condition and pitta vriddhi condition. In this study anidra pertaining to patients of pakshaghata was taken and were subjected to shankapushpi siddha taila dhara and shankapushpi siddha takra dhara based on the group allotted. Shankapushpi itself is having medhya ,nidrajanana effect. Here mainly vata vriddhi is the cause for anidra.

OVER ALL EFFECT

Effect on symptoms of anidra





The symptom angamarda in taila dhara group, showed 50% reduction in symptom. In takra dhara group 58% reduction in the symptom was seen.

Shirogaurava-In tailadhara group, there was 61% reduction in symptom and in takra dhara group there was 66% reduction of symptom was seen after treatment.

Jrumbha- In tailadhara group there was 67% reduction in symptom and in takra dhara group there was 65% reduction of symptom was seen after treatment.

Jadya - In tailadhara group there was 40% reduction in symptom and in takra dhara group there was 60% reduction of symptom was seen after treatment.

Glani- In tailadhara group there was 65% reduction in symptom and in takra dhara group there was 46.6% reduction of symptom was seen after treatment.

Bhrama - In tailadhara group there was 52% reduction in symptom and in takra dhara group there was 50% reduction of symptom was seen after treatment.

Tandra - In tailadhara group, there was 71% reduction in symptom and in takra dhara group there was 50% reduction of symptom was seen after treatment.

Apakthi - In tailadhara group there was 42.85% reduction in symptom and in takra dhara group there was 28.57% reduction of symptom was seen after treatment.

Insomnia Screening Questionnaire- In tailadhara group there was 41.86% reduction in symptom

and in takra dhara group there was 35.89% reduction of symptom was seen after treatment.

Time taken for getting sleep- In tailadhara group there was 67% reduction in symptom and in takra dhara group there was 54.76% reduction of symptom was seen after treatment.

Sleep interruption- In tailadhara group there was 50% reduction in symptom and in takra dhara group there was 40% reduction of symptom was seen after treatment.

Duration of sleep- In tailadhara group there was 39.53% reduction in symptom and in takra dhara group there was 38.46% reduction of symptom was seen after treatment.

Athens Insomnia scale - In tailadhara group there was 41.86% reduction in the severity of insomnia was seen and in takra dhara group there was 38.46% reduction was seen after treatment.

Here mainly vata vriddhi is the cause for anidra. Here shankapushpi siddha tailadhara group showed better result when compared to the shankapushpi siddha takra dhara group.

REFERENCES

- 1.Sharma RamKaran editor. Charaka samhitha of Agnivesa, Varanasi: Chowkhamba Sanskrit series office;2006. p.219.
- 2. Sharma RamKaran editor. Charaka samhitha of Agnivesa, Varanasi: Chowkhamba Sanskrit series office; 2006. p.150.
- 3. Sharma RamKaran editor.Charaka samhitha of Agnivesa,Varanasi:Chowkhamba Sanskrit series office;2006.p.381.





- 4. Patil Vasant and Rajeshwari.N.M editor.Susrutha Samhitha of Susrutha. New Delhi:Chaukhambha Publications;2018,p-163.
- 6. Suresh Babueditor. Astanga Samgraha of Vagbhata, Varanasi: Chowkhamba Orientalia;2004. p.109.
- 7. SharmaRamKaran editor. Charaka samhitha of Agnivesa Volume 1,Varanasi:Chowkhamba Sanskrit series office;2006. p.366.
- 8. Suresh Babueditor.Astanga Samgraha of Vagbhata, Varanasi:Chaukhambha Orientalia;2004. p.109.
- 9. Sharma RamKaran editor. Charaka samhitha of Agnivesa Volume 1, Varanasi:Chowkhamba Sanskrit series office;2006. p.384
- 10. Harisadasiva Shastriparadakara, editor. Commentary Sarvanga Sundara of Arunadatta on Ashtanga Hridaya of Vagbhata, Varanasi: Chaukhambha Sanskrit Sansthan; 2016.p301
- 11. Harisadasiva Shastriparadakara, editor. Commentary Sarvanga Sundara of Arunadatta on Ashtanga Hridaya of Vagbhata, Varanasi: Chaukhambha Sanskrit Sansthan; 2016.p-864
- 12. Krishnan.K.V. andPillai.S. Gopala editor. Sujanapriya Commentary on Sahasrayogam, Alappuzha: Vidyarambham Publishers; 2006.p-474.
- 13. Harisadasiva Shastriparadakara, editor. Commentary Sarvanga Sundara of Arunadatta on Ashtanga Hridaya of Vagbhata, Varanasi: Chaukhambha Sanskrit Sansthan; 2016.p301