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Clinical effect of Jaladhara in the management of Nidranasa (Primary Insomnia)

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ABSTRACT

About one third of our lives we spend asleep. Ayurveda has also given more importance by considering it one among Trayopasthamha. The condition of Insomnia may not be a life threatening illness, but it has tendency to damage the persons daily life, including his social and occupational life. Ayurveda has a very good approach towards the treatment of Nidranasha by both internal and external medications. As MoordhniTaila is mentioned highly effective in inducing good sleep hence for this present study water has been selected for Shirodhara to evaluate its effect on Nidranasha. The therapy shows 42.1% improvement in duration of sleep with $p < 0.001$, 56.4% improvement in sleep initiation, 23.6% improvement in disturbed sleep, 29.5% improvement in disturbances in routine work with $p < 0.01$ and 28.8% improvement in no. of interruptions, 29.5% improvement in dreams with $p < 0.05$. It also showed good improvements almost all the associated symptoms of Nidranasa. The follow up study showed the symptoms reappeared after one to two months of completion of the treatment.

Keywords: Nidranasa, Primary Insomnia, Jaladhara

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INTRODUCTION

About one third of our lives we spend asleep. Through the ages, sleep has occupied a special place in human concern. Ayurveda has also given more importance by considering it one among Trayopasthamha. The condition of Insomnia may not be a life threatening illness, but it has tendency to damage the persons daily life, including his social and occupational life. If it is very chronic, the person may develop varieties of psychiatric illness. In comparison to the therapeutic procedure of different systems of medicine, Ayurveda has a very good approach towards the treatment of Nidranasha by both internal and external medications. As external medication is concerned, the MoordhniTaila said to be highly effective in inducing good qualities of sleep described by various Ayurveda Acharyas. The MoordhniTaila constitutes four varieties of therapeutic procedures out of which 'Shirodhara' is one (A.H.Su. 22/23). For Shirodhara different kinds of liquids are used. For example – Taila, Takra, Ghrita, Ksheera, etc. As MoordhniTaila is mentioned highly effective in inducing good sleep hence for this present study water has been selected for Shirodhara to evaluate its effect on Nidranasa.

Aims and Objects:

To evaluate the role of Jaladhara in the management of Nidranasha(Primary Insomnia).

Patients and Materials:

For the present clinical study, 12patients fulfilling the diagnostic criteria of Nidranasha (Primary Insomnia) were randomly selected from the OPD and IPD of SDMCA & H, Hassan, Karnataka.

Criteria for Diagnosis:

For diagnosis, detail medical history was taken and physical examination was done in detail according to both Modern and Ayurvedic clinical methods. A detailed interview was conducted to elucidate sleep problems, social problems and other areas of functioning etc.

To assess the psychological intactness, mental status examination was carried out. To confirm or exclude the other medical disorders routine haematological and urine investigations were carried out.

Inclusion Criteria:

- Patients complaining of reduction in sleep time, difficulty in initiation of sleep, wakefulness during normal sleeps either any of these or all these.
- Along with Nidranasha patients complaining of Angamarda, Shirogaurava, Jrumbha, Jadyata, Glani, Bhrama, Apakti (A.H.Su. 7/64).
- Patients already diagnosed for primary insomnia with the duration of 1 month to 5 years.

Exclusion Criteria:

- Nidranasha due to other conditions like Pittavridhi, Madatyaya, Abhigata and other systemic diseases etc. was excluded.

Following instructions were given to the patients:

- Avoid sleep during day time.
- Avoid intake of excess liquids in the evening
- Avoid alcohol, smoking, tobacco, etc. especially at evening
- Silence etc. should be maintained inside the bedroom
- Advised not to take excess spice foods
- Do not see T.V or doing works till late night

Criteria for assessment:

The assessment of the effects of the drugs under trail was done after the 7 days course of Dhara. To give some objectivity to the symptoms, each symptom was assigned to definite scores. The scoring adopted for this study was as follows:

Initiation of sleep (Normal within 30 minutes)

No difficulty in getting sleep after going to bed	-	0
Getting sleep 1hr after going to bed	-	1
Getting sleep 2 hrs after going to bed	-	2
Getting sleep > 3 hrs after going to bed	-	3

Dreams

No dreams	-	0
Pleasant / Occasional dreams	-	1
Moderately disturbing dreams	-	2
Presence of fearful dream	-	3

Disturbed Sleep

Sound sleep	-	0
Full time sleep with thoughts	-	1
Sleep after 30-60 min. with changing postures	-	2
Sleep with frequently changing postures	-	3

Gradation for Disturbances in routines

Awakening with freshness	-	0
Awakening with feeling of unrefreshness	-	1
Heavyness over forehead and irritation during work	-	2
Headache with frequently irritation with family and work	-	3

Disturbing routine work - 4

1. Gradation for associated complaints

Presence of symptoms - 2

Any improvement - 1

Complete relief of symptoms - 0

No changes - 2

2. Duration of sleep (Normal 6-8 Hrs)

Directly it has recorded from patient/patients attender

3. Interrupted sleep (Normal 1-2)

Directly it has recorded from patient /patient's attender

4. Overall effect of Therapy

Completely relieved - 100%

Marked improvement - >75% - < 100%

Moderate improvement - > 50% - < 75%

Mild improvement - > 25% - <50%

Unchanged - < 25%

5. Statistical analysis

In this study for the sake of statistical analysis of the above said parameters, paired 't' test method was adopted and S.D., S.E. 't' and 'p' values were calculated according to it.

General Observations

Table 1

Age in Years	%	Sex	%	Religion	%	Marital Status	%
20-30	4 33.3	Male	7 58.3	Hindu	11 91.6	Married	11 91.6
31-40	1 8.3	Female	5 41.6	Muslim	1 8.3	Unmarried	1 8.3
41-50	6 50						
51-60	0 0						
61-70	1 8.3						

Table 2

Economic Status	%	Dietary Habbits	%	Addiction	%	Chronicity	%
Poor	4 33.3	Vegetarian	6 50	Tea/Coffee	7 58.3	3-6 M	3 25
Lower Middle	5 41.6	Non vegetarian	6 50	Smoking	6 50	6M-1Yr	4 33.3
Upper Middle	3 25			Alcohol	1 8.3	1-2Yr	3 25
				No addiction	2 16.6	2-5Yr	2 16.6

Table-3

Specific Hetus	%	Cardinal Signs & Symptoms	%	Associated Symptoms	%
Udvega	7 58.3	Difficulty in initiation of sleep	9 75	Angamarda	8 66.6
Chinta	9 75	Loss of sleep in early morning	7 58.3	Apakti	5 41.6

Bhaya	3	25	Reduction in sleep time	12	100	Aruchi	5	41.6
Krodha	6	50	Disturbances of sleep	7	58.3	Shirogurava	9	75
Vishada	6	50	Disturbed sleep	6	50	Jrumbha	7	58.3
Social disturbance	5	41.6	Disturbed routine work	7	58.3	Ghani	6	50
Occupational disturbance	4	33.3	Dreams	5	41.6	Bhrama	5	41.6
Environmental changes	3	25				Shrama	5	41.6
Family problem	6	50				Klama	6	50
Disturbed sexual relationship	2	16.6				Shirashoola	7	58.3
Disturbed married life	3	25						

EFFECT OF JALADHARA:

For Shirodhara plane water was used at body temperature. The effects on the various parameters were as follows:

Table 4: Effect of Jaladhara on Sleep patterns of 12 patients of Nidranasha

<i>Signs and Symptoms</i>	Mean score		% of relief	S.D (±)	S.E (±)	't'	'p'
	BT	AT					
Sleep initiation (in hrs)	1.33	0.58	56.4	0.75	0.21	3.57	<0.01
Duration of sleep (in hrs)	3.75	5.33	42.1	1.22	0.35	4.47	<0.001
No. of interruptions	2.33	1.66	28.8	0.77	0.22	3	<0.05
Disturbed sleep (in grades)	2.5	1.91	23.6	0.51	0.14	4.14	<0.01
Dreams (in grades)	2	1.41	29.5	0.66	0.19	3.02	<0.05
Disturbances in routine works (in grades)	2.33	1.50	35.6	0.71	0.2	4	<0.01

Table 5: Effect of Jaladhara on Blood pressure and Pulse of 12 patients of Nidranasha

<i>Blood Pressure</i>	Mean BP in mm of Hg		% of relief	S.D (±)	S.E (±)	't'	'p'
	BT	AT					
Systolic	135.8	131.5	3.1	3.17	0.91	4.72	<0.001
Diastolic	83.66	80.5	3.8	3.24	0.93	3.37	<0.01
Pulse	78	76.8	1.5	1.99	0.57	2.01	<0.05

Table 6: Effect of Jaladhara on Associated symptoms of 12 patients of Nidranasha

<i>Symptoms</i>	Mean Score		% of relief	S.D (±)	S.E (±)	't'	'p'
	BT	AT					
Angamarda	1.33	0.58	56.4	0.75	0.21	3.57	<0.01
Shirogurava	1.5	0.58	61.3	0.79	0.22	4.13	<0.01
Shiroshoola	1.16	0.5	56.9	0.77	0.22	3	<0.05
Jrumbha	1.16	0.41	64.6	0.75	0.21	3.57	<0.01
Apakti	0.83	0.5	39.7	0.49	0.14	2.35	<0.05
Aruchi	0.83	0.42	49.4	0.66	0.19	2.15	>0.05
Ghani	1	0.42	58	0.79	0.22	2.63	<0.05
Bhrama	0.83	0.33	60.2	0.79	0.22	2.27	<0.05
Shrama	0.83	0.42	49.4	0.66	0.19	2.15	>0.05
Klama	1	0.5	50	0.67	0.19	2.63	<0.05

Table 7: Overall effect of Jaladhara on 12 patients of Nidranasha

Effect	No. of Patients	%
Complete remission	1	8.33

Marked improvement	4	33.33
Moderate improvement	4	33.33
Mild improvement	1	8.33
Unchanged	2	16.66

Table 8: Follow-up study of Jaladhara on 12 patients of Nidranasha

Effect	Patients in percentage			
	AT (n=12)	15 days after treatment (n=12)	1 month after treatment (n=9)	2 months after treatment (n=7)
Complete remission	8.33	0	0	0
Marked improvement	33.33	16.66	0	0
Moderate improvement	33.33	33.33	22.22	0
Mild improvement	8.33	25	44.44	42.85
Unchanged	16.66	25	33.33	57.14

DISCUSSION:

It is clear from the above observation that the Shirodhara done by Water is providing the relief to the patients in loss of sleep. But on the basis of follow-up study it may be stated that the symptoms will reappear after a period of 1 – 2 months.

If we consider the position during the Shirodhara the patient is lying down on the table with both the eyes closed by the piece of cotton and the liquid is being poured continuously on the forehead just near to the eye brows. In between the eyebrows and just above there is a sensitive area which can be felt by any one. According to Ayurvedic points of view it is consider the area for SthapaniMarma which is a ShiraMarma. Marmas are very important points where Soma (Jala/Kapha), Vata, Agni (Pitta), Raja, Satva, Tama and Bhutatma's are present (Su.Sha. 6/46). Mild stimulation of the Marmas may provide relief in certain diseases but its injury may leads to many complications and even death. So it may be possible that during Shirodhara the PranaUttejana takes place which is present in SthapaniMarma brings Tama and Kapha to normal state leads to NidraUtpatti.

As mentioned above during the process of Shirodhara patient lies down on the table comfortably in a calm room without any noise with eyes closed and having concentration on the liquid being poured on the sensory part of fore head. This position may be equated with Shavasana or Meditation and in this way the position provides all the benefits of meditation.

The above views of meditation are further supported by the Yogic observation that during the meditation the ultimate aim is to concentrate between the eye brows. According to Yogic science among the seven charkas two are located in the head i.e. Ajna chakra (Optic Thalami) and Sahasrara chakra (Cerebrum). It can be hypothesized that with Dhara therapy these two charkas are getting stimulated and activating the hypothalamus.

The common factor in above mentioned disease is anxiety. Thus it can be said that Shirodhara proved its beneficial effects may be due to anxiety releasing action of the Shirodhara.

Pressure may have an effect on impulse conduction through tactile and thermo receptors. If prolonged pressure is applied to a nerve, impulse conduction is interrupted and part of the body may go to sleep (Tortora). In Dhara therapy, prolonged and continuous pressure due to trickling of medicated liquids may cause tranquility of mind and induces natural sleep.

Thus accumulative of all the above mentioned Neurophysiological stimulation of Sthapani Marma, Meditation, Awakening of Chakras, may be responsible for the beneficial effects of Shirodhara represented in this study on the disease of Nidranasha (Primary Insomnia).

CONCLUSION:

It is obvious from the foregoing that Shirodhara done with Jala provided significant relief in signs and symptoms of the patients of the Nidranasha but the effect will sustain for a period of 1-2 months. However the study was conducted on small scale sample, so further study along with Psychoneuropharmacological study can provide some fruitful conclusions

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