

THE CLINICAL STUDY OF KSHEERBALA TAIL PAADABHYANGA IN ANIDRA W.S.R PRIMARY INSOMNIA

Lokesh H. Patankar¹, Dipali Sonawane²

¹PG Scholar Dept. of Panchakarma SSAM, Nashik, Maharashtra, India

²Associate Professor Dept. of Panchakarma, SSAM & Hospital, Nashik, Maharashtra, India

Email: lpatankar1986@gmail.com

ABSTRACT

'The foot feels the foot when it feels the ground' says Lord Buddha.¹

Pada or Foot has been given very much importance in Indian tradition and Indian system of medicine. Today the life is going to be fast. In this busy schedule we just think for better results only, never think about the machines (Human body) which work for us. as an overused result in stress which leads to improper sleep with gift of lots of diseases like hypertension, mentally sickness and insomnia. Ayurveda the ancient science of balancing life has explain daily regimen call systematic healthy to do check list mention as *Dinacharya*. Which includes activity from sun rising to sun set i.e. wake up at early morning (*Brahamamurhteutthishe*), Brushing teeth properly (*Dantadhavan*), bathing with medicated soap (*Snaan*) and Massage of feet called *Paadabhyangya*. For this process used various medicated oil, here feet massage were done with the help of *Kheerabala tail*, as properties of tail show the effect on *Anidra*. That also has antistress and Anti oxidant properties with soothing and calm effect on whole body and mind and help to induced a good quality sleep. To see the effect 20 patient were selected based on *Panchkarma* OPD with inclusion and exclusion criteria. Procedures were done according to some textual standard. Follow up and assessment were taken on 0th and 7th day of procedure. After assessment the observation result show that out of 20 patients 2 were get up to 100 % Relief i.e. complete remission of symptoms, 12 gets marked improvement, some of like 3 only get moderate improvement while only 4 can get minor relief drawn accordingly. While think about symptomatic more prominently Angmarda symptoms get reduced. Discussion and conclusion were derived on the basis of observation.

Keywords: *Dinacharya, Sneha, Ksheerbala tail, Paadabhyanga, Nidranash* (Primary Insomnea).

INTRODUCTION

Ayurveda is a 5,000-year-old system of natural healing has its origins in the Vedic culture of India. The word *Ayurveda* is from the Sanskrit language and composed of two parts: “*Ayu*” means Life, “*Veda*” means Knowledge, Wisdom, and Science. Thus the term meaning can be translated as a “Science/Wisdom of Life”. It offers a body of wisdom

designed to help people stay vital while realizing their full human potential. Providing guidelines on ideal daily and seasonal routines, diet, behavior and the proper use of our senses, *Ayurveda* reminds us that health is the balanced and dynamic integration between our environment, body, mind, and spirit.

Today the living standard and behavioral pattern was

much related to focus on how to look attractive, smart, and beautiful, which promotes to use of various chemicals and unwanted steroids and various surgeries for just outer beauties, no one going to think about development of inner beauty. We exercised for fit body, We make-up and do facial for cute face, we massage and do gym for perfect shape but nobody can think and act for good care of foot on daily basis by which we can move anywhere, those bear our weight etc.

In *Ayurveda* the *Acharyas* has understand its importance and they included foot care in their daily routine activity and to do list to live healthy, fit and happy called "*Dincharcy*".² In that they have explained various activity like "*Brahmamuhurteuthishte*" "early to bed and early to rise", "*Dantdhawan*" daily brushing of teeth, "*Snana*" daily bath etc. *Paadabhyanga* are one of them.

"*Pada*" –is one of the body part i.e. foot. And "*Abhyanga*"-is application of medicated oil over body and body parts. Reflexology, Acupuncture, Acupressure and Pedicure have to be originated from this science of ancient foot care methodology. caring of foot through traditional Ayurvedic methods goes beyond the cosmetic purpose it benefits the whole body and nervous systems also. feet is very important part of body where many vital points called "*Marma*" are situated³, These are the points where our energy is concentrated in the form a matrix of 107 energy points which stimulate the function and responses of the body hence caring the feet give us good health. Foot massage is also the important rout of drug administration in the patient suffering from disease of eye and foot. It says that practice of *Paadabhyanga* daily before sleeping can improve eye sight and induce good sleep. For massage of feet we generally used Sesame oil but there are some various medicated oil also be use according to disease and their properties and benefits.

AIM

The clinical study of *Ksheerbala tail Paadabhyanga* in *Anidra* w.s.r Primary Insomnia.

OBJECTIVE

To study the role of *Paadabhyanga*, as an *Upkarma* in *Dincharya* with relation to Insomnia.

To study the effect of *Ksheerbala tail Paadabhyanga* in *Anidra* w.s.r. to Primary Insomnia

PROCEDURE

MATERIALS AND METHODOLOGY

- *Ksheerbala tail*
- Soft cotton towel
- Water (luke warm)
- *Abhyanga* Table

PURVAKARMA (PRE-PROCEDURE)

Selection and Examination of patient were done according to Symptoms and Sleep Efficiency Index.

PRADHAN KARMA (ACTUAL PROCEDURE)

- Procedures were carried out in supine, lateral, and prone position of patient.
- Clean the feet surface with Luke warm water and herbal soap gently.
- Wipe it out nicely with soft cotton towel sit in comfortable position.
- Apply the oil to one of the feet for lubrication.
- Start with gently rubbing to the base of great toe squeezing with thumb with continuation of next toe.
- Allow proper pressure and massage with using palms and thumb of hand.
- Next apply slight pressure and oil in between toes.
- Stretch and pull the big toe gently and rub each side of nails.
- Now, next massage to base at Calcaneous region in circular motion with gently pressure.
- Also allowed massage and apply oil on dorsum of foot along ankle joint in circular and linear pattern respectively.
- During massage used each steps like a. Stroking, Ankle Rotation, Pivoting, Kneading, Finger walking, Pulling and Squeezing, Sliding and Arch pressure.

OIL -- 5 -10 ml of oil for each foot.

TIME DURATION -- At least 10-15 min thoroughly for each foot.

INCLUSION CRITERIA

Any age from above 20 yrs to 60 yrs.
Patient with symptoms of *Anidra*.⁴

- *Angamarda*
- *Akshigaurava*
- *Shirogaurav*
- *Jrumbha*
- *Tandra*
- *Aalasya*

SLEEP EFFICIENCY INDEX⁵

Sleep efficiency index were taken to get effective results for analysis and subjective criteria of *Anidra*, Above Assessment done on day 0th and after 7th day of procedure started. Thoroughly seven day of treatment procedure were selected for study.

Grade 0: SEI above 85%

Grade 1: SEI between 60 to 85%

Grade 2: SEI between 30 to 60%

Grade 3: SEI below 30%

FORMULA

SEI=Total sleep time/Time in bed X100

Exclusion criteria

Any patient suffering from known major systemic illness, Diabetes Mellitus, Psychosomatic disorder like Schizophrenia, Depression, Alcoholic, Any major Neurological disorder etc.

Withdrawal criteria

The patient who wished to discontinue and not ready for further participation was discontinued and not taken in assessment result. Those having any adverse effect will be excluded.

IMPORTANCE OF PAADABHYANGA⁶

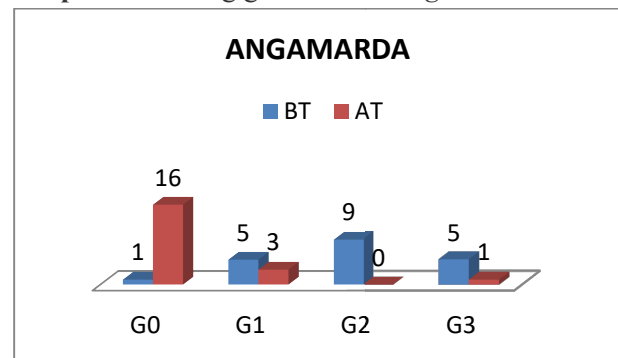
Paadabhyanga can cure. *Kharatava*-clear the roughness, *Stabdata*-Cure Stiffness, *Rukhshtava*-Corrects excessive dryness of feet, *Shrama*- Relives exhaustion of feet. *Sthairya*-Promotes strength of feet, *Drushtiprasdakar*-Nourishment to eye, *Drudindriyatva*-Provides strengths to all sensory organs, *Padasukumaryam*-Tenderness and attractiveness of foot, *Padabalam*-Strength in foot, joints and soft tissue in foot, *Marutopshamana*-Controls and balances *Vayu*, *Nidrakara*-Induces Sleep, Provide soothing effect to whole body,

Paadvangmrudukarich- Aids foot health ,alleviates pain, improves muscle tone, nourishes, prevents and cures dryness and roughness of the skin. Also relive fatigue and cramps.

OBSERVETION

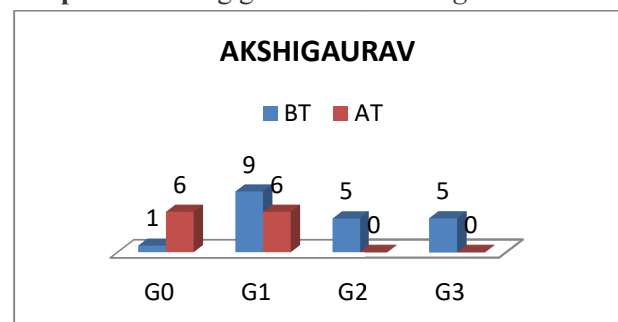
Efficacy of therapy was assess on the basis of reduced severity of *Andria* symptoms those taken as assessment criteria with their grading for e.g. Gr. 0 no malise, Gr. 1 malaise after reasonable cause, Gr. 2 Malaise for no reason, Gr. 3 Always malaise without any cause. The grade scale number were asses on day 0th before starting of procedure and on 7th day after procedure when symptoms were present it was quoted as 1,2,3 and when absent, quoted as 0. And the result were present graphically as mention below graph

Graph 1: Showing gradation of *Angamarda*



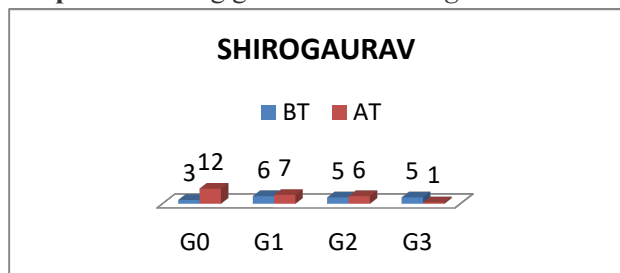
Their show that in over all patients, grade 2, 3 symptoms goes to reduced at symptoms mention at grade 0 with showing improvement in *Angamarda* symptoms as *Paadabhyanga* going on.

Graph 2: showing gradation of *Akshigaurav*.



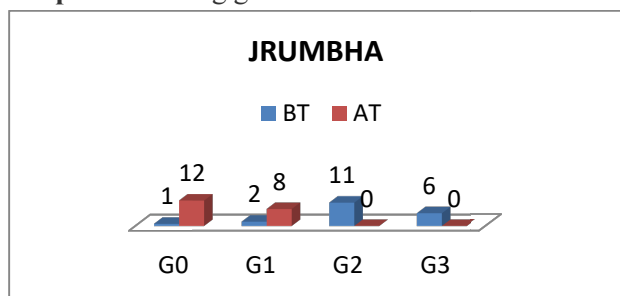
It observe in given graph that the patient were in grade 3, 2,1 Before Treatment goes to reduce After Treatment.

Graph 3: showing gradation of *Shirogaurav*.



It observe in given chart that the symptoms of *Shirogaurav* those on grade 3,2,1 Before Treatment goes reduced and shift to ,2,1,0 After Treatment also some grade of 1 may not be changed remain as it is .

Graph 4: showing gradation of *Jrumbha*.

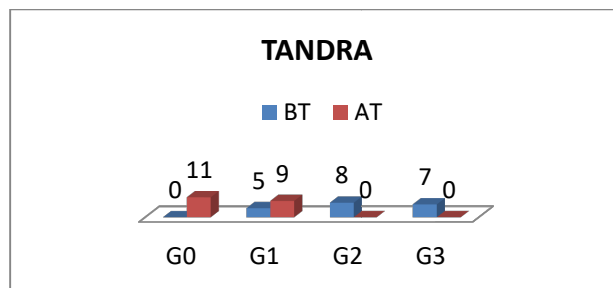


It shows the no. of patient those are in grade ,3,2,1 Before Treatment get shifted to ,2,1,0 After Treatment the dramatically result were seen in grade 0,meance symptoms of *Jrumbha* were get reduce after treatment.

Graph 5: showing grading of *Tandra*
OVER ALL ASSESMENT OF SYMPTOMS

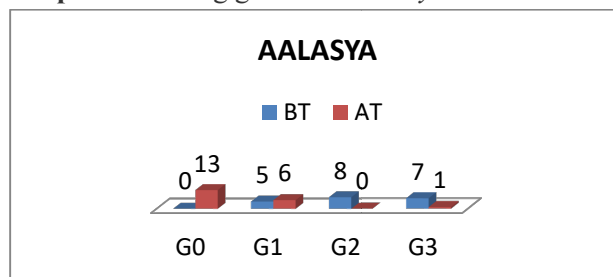
Table 1: shows comparison of symptoms before and after treatment

Symptoms	Average BT	Average AT
<i>Angamarda</i>	1.9	0.3
<i>Akshigaurav</i>	1.7	0.3
<i>Shirogaurav</i>	1.7	0.5
<i>Jrumbha</i>	2.1	0.4
<i>Tandra</i>	2.15	0.5
<i>Aalasya</i>	2.1	0.45
<i>Sei</i>	1.2	0.45



Graph shows that total no. of patient having symptoms of *Tandra* going to reduced after treatment and the grade of that being shift from 3,2, to 1,0 ,some of that being stay as it is After treatment .so the symptoms of *Tandra* were get reduced .

Graph 6: showing grade of *Aalasya*.



The symptoms of *Aalasya* were decreased after treatment grading of being ,3,2 were shifted to ,2,1 more effectively patient have no fatigue after procedure.

Graph 7: showing grading of Sleep Efficiency Index

The result shows that the total sleep time of patient with total time in bed were increased so the patients get better sleep with effect in their symptoms.

Graph 8: shows comparison of symptoms

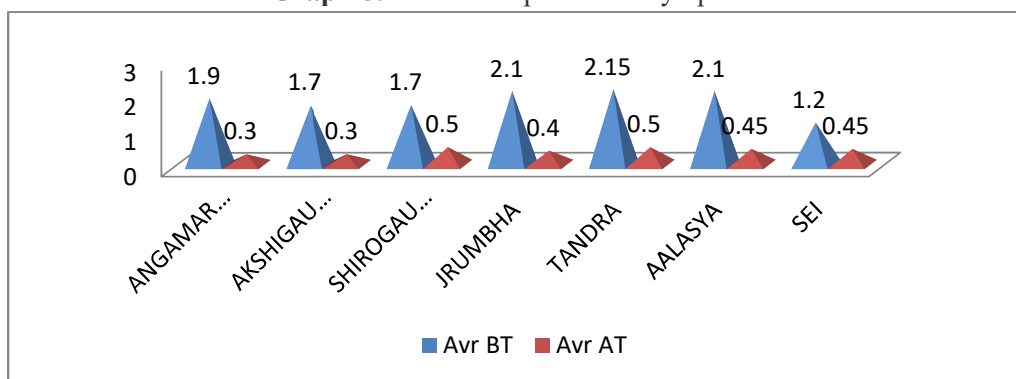
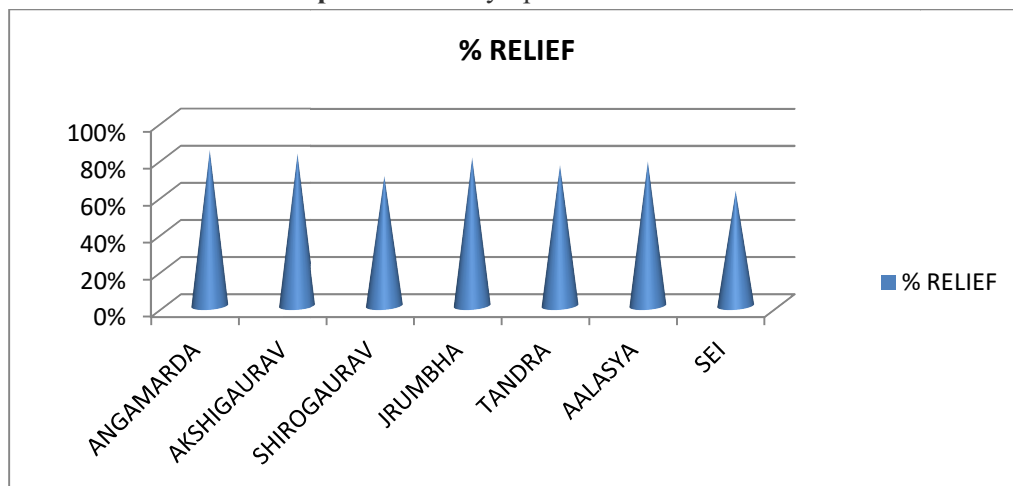


Table 2: Symptom wise Percentage of Relief

Symptoms	% Relief
Angamarda	84%
Akshigaurav	82%
Shirogaurav	70%
Jrumbha	80%
Tandra	76%
Aalasya	78%
Sei	62%

Graph 9: shows Symptoms wise % Relief



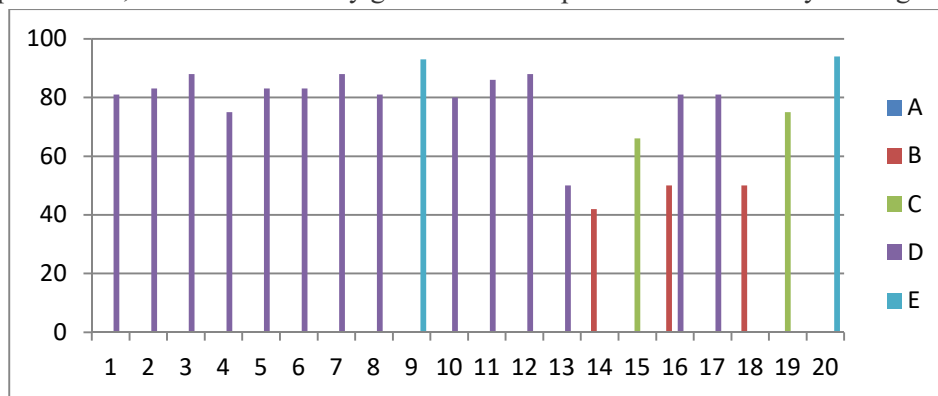
OVERALL ASSESMENT CRITERIA

- A. <25% Relief-unchanged
- B. 25 to 50 % Relief –Minor Improvement
- C. 50 to 75% Relief-Moderate Improvement
- D. >75% Relief-Marked Improvement
- E. 100%-Complete Remission

Table3: Overall Assessment of Patient

	A	B	C	D	E
1				81%	
2				83%	
3				88%	
4			75%		
5				83%	
6				83%	
7				88%	
8				81%	
9					93%
10				80%	
11				86%	
12				88%	
13		50%			
14		42%			
15			66%		
16		50%		81%	
17				81%	
18		50%			
19			75%		
20					94%

Overall Assessment shows that out of 20 patients 2 were get up to 100 % Relief i.e. complete remission, 12 gets marked improvement, some of like 3 only get moderate improvement while only 4 can get minor relief.



DISCUSSION

During very busy scheduled of life *Ayurveda* given some priority for maintaining of health by following its daily to do checklist mention as a *Dinacharya*.

Paadabhyanga one of the constituent of *Dinacharya* having its importance towards living healthy and disease free life. *Ayurveda* has mention that just as snakes fears going to place occupied by eagle, dis-

ease do not go near one who massage his feet and leg before sleeping.

According to *NadiVidgyana*, *Nadi* are the complicated network of fine energy pathway and each pathway followed end point of body surface up to the brain cortical which has various energy platform in the form of *Chakras*, they are six in numbers⁷, If they are spinning in proper way there constant en-

ergy is kept circulating within us. Wellness and ability to heal were depend on these energy flow system, if going without interruption we feel healthy and calm and if as soon as there is block of energy flow we start feeling something bad going to happen and result in the form of diseases. *Paadabhyanga* soothes the *Nadies* and provide to regain its physiological activity to allowed flow of energy without interruptions with feeling of healthy well being.

The oil used for *Padabhyanga* was *Ksheerabala tail*⁸. The Sesame oil is medicated by using *Ksheera* (cow's milk) and *Bala* (*Sidacardifolia* Linn.). *Ksheerabala tail* the *Ayurvedic* drug beneficial for various disorders of Neuromuscular, Joints, Neurological like Insomnia⁹ and other stress and degenerative related disease. *Sidacordifolia* is a herbs from *Malvaceae* family have various properties base on *Ayurvedic* pattern of analysis it say that *Bala* has *Guna* as *Laghu*, *Snigdha*, *Pichhilla*, *Rasa-Madhur* (sweet), *Virya-Sheeta*, which would be help full to controlled *Vaatadosha* and provide *balya* effect after used, the *Gana* i.e. group in which it include is *Balya*, *Bruhaniya*, *Madhurskandh* and *Vaatsanshaman*, work properties include to provide power to *Nadi*¹⁰ (Nurological system) studies conducted by Auddy et al.¹¹ on antioxidant properties of *Ayurvedic* drugs used for management of Neurodegenerative diseases revel that *Sidacardifolia* had more antioxidant properties than other herbs Study conducted by Dhalwal et al¹². Also shows that *Sidacardifolia* is potential source of natural antioxidants.

The milk used with drug to prepare oil also poses significant antioxidant activity¹³. Milk properties according to *Ayurveda* Says that milk is *Jivaniyam*-improves vitality, *Manasskar*-Provides Soothing effect to mind, *Shramhar*-Relax the body, *Balya*-Provides Muscles tone, *Medhya*-Good for brain.etc¹⁴. Also milk contain various form of Proteins, Fats, Vitamins those are essential for body, because of its various beneficial properties *Acharyas* mention milk as complete food for human being.

Sesame oil was extracted by sesame seeds of plant *Sesamumindicum* and contains several antioxi-

dants¹⁵. *Til tail* were mentions as Superior in all varieties of oil. It is *Marutaghana*-Reduced the effect of Vitiated *Vaat dosha*, Control that *vaat* to regain its normal function in body, *Balavardhan*-Provides strength to body *Sthairakar*-Give Stability to body Parts or Organ, *Twachyam*-Good for Skin, *Nacha shleshmvardhanam*¹⁶ even though the oil is lustrous but cannot affect *Kapha dosha* collection he reduced that *Kapha* with its *ushna guna* so can be effective in *Anidrajanya* vitiated *vaat dosha* etc. *Til tail* were massage on feet get absorbed percutaneously through the skin comparatively easy because it is in the lipid form.¹⁷ When the oil applied to the skin it get absorbed to provide systemic effect. about the time taken for the absorption of oil and the herbal ingredients present in it, been says that as the time passes oil get enters into deeper and deeper tissues in body, enters into root of hair follicle in 96 sec. (300 *matra*), to reach full thickness of dermis in 128 sec. (400 *matra*) and keep going deeper and deeper so from skin to *Majjadhatu* takes 288 sec.(900 *matra*). There are one important point situated on both the feet is solar plexus reflex, The solar plexus is stress warehouse, it stored all stress full activity as the solar plexus point is get pressed during process all stress is relive and body get calm.¹⁸.

The *Anidra* result in the vitiated *Vaatdosha*, Imbalance of *Tama Guna* and some degenerative changes of *SharirDhatu*. Which leads to increased in *Rukhsta* (dryness over body, The oil has *Til tail* as base which have its property as *Ushna Veerya*, *Snigdha*, *Sukshama*, *Teekshna* which leads to reduced vitiated *Vaat* which has *Sheeta*, *Laghu*, *Ruksha* properties with *Vyavai* and *Vikshi guna* it entered to deeper *Dhatu* to allowed nourishment of that. The massage of oil in feet say *Abhyanga* can work on vascular system, Nervous System and Lymphatic Drainage system. With touch it stimulates tactile receptor and mechanoreceptor in skin. With roughing and as we used some Luke warm oil temperature of that surface get increased that caused kinetic motion to the receptor which leads to get activation of axons end at surface level. There kinetic energy leads to vaso-

dilatation to subcutaneous level and *Veerya* of drug get absorb in to circulation by increasing blood amino acids that increasing plasma tryptophan level which leads to Neurotransmitter activation ,secret melatonin that leads to serotonin secretion thus maintained normal mechanism of cell.¹⁹ *Paadabhyanga* increases intensity of brain waves and decrease adrenaline ,cortisone level. As *Paadabhyanga* normalised Neurotransmitters which are regulate sleep i.e serotonin and Norephinephrin Neuro-psychologically induced sleep that over all gives good results of *Paadabhyanga* Over sleep disturbance.

CONCLUSION

Study shows great results with *Ksheerabala tail Paadabhyanga* as a daily Procedure to get relief from stress and to induce sleep. Symptoms like *Angamarda, Tandra, Jrumbha* were get reduce. The antioxidant was supply to brain via blood stream through Procedure shows *Paadabhyanga* also as route of Drug administration. The sleep efficiency index of a person were increased, that means patient get sound sleep with freshness after awaking ,its time on bed get reduced so in limited time he can achieve good quality of sleep with calm and relax mind. As stress was a getaway to welcome various diseases. due to *Paadabhyanga* Stress was release ,patient get calm mind, so he feel fresh ,happy, smiley so it help full to allow person to be stay away from disease like Hypertension ,stress full condition etc. The results were encouraging to go further in the deep sea of research to churning it with the help of research tool for the sake of community to provide better health with use of the great science of life called Ayurveda.

LIMITATIONS

The study may have some limitations regarding some small sample size, non randomized sample or participation selection. Just because of that study result will lack generalised view outside the study. Constituents of oil were not individualized as per severity or *prakruti, dosha* variation etc.

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