

A REVIEW OF SHIRODHARA BASED ON EVIDENCE: A UNIQUE PANCHAKARMA THERAPY

Sangeeta Solanki^{*1}, Umesh Shukla² and Ashwini Sharma³

¹PG Scholar, Department of Panchkarma, Pt. Dr. Shiv Shakti Lal Sharma Ayurvedic College Ratlam (M.P) – 457001.

²Associate Professor, Department of Panchkarma, Pt. Dr. Shiv Shakti Lal Sharma Ayurvedic College Ratlam (M.P) – 457001.

³Assistant Professor, Department of Panchkarma, Pt. Dr. Shiv Shakti Lal Sharma Ayurvedic College Ratlam (M.P) – 457001.

Article Received on
01 Nov. 2024,

Revised on 22 Nov. 2024,
Accepted on 12 Dec. 2024

DOI: 10.20959/wjpr202424-34984



***Corresponding Author**

Sangeeta Solanki

PG Scholar, Department of
Panchkarma, Pt. Dr. Shiv
Shakti Lal Sharma Ayurvedic
College Ratlam (M.P) -
457001.

ABSTRACT

Shiro Dhara is an ancient Ayurvedic treatment that involves applying medicated oil to the scalp or forehead. It is part of the Abhyanga, Seka, Pichu, and Basti types of Murdha Taila and is recommended for treating various illnesses, including migraine; face paralysis, paralysis, ocular pain, anxiety neurosis, insomnia, and neuropsychological and psychosomatic diseases. The Shiro Dhara method consists of three components: Pradhana Karma, Paschat Karma, and Purva Karma. The patient's suitability is determined through Purva Karma, which includes a Droni table, a Dhara Patra, a wick, and 1.5 liters of appropriate oil. The treatment can be administered daily for seven to fourteen days, depending on the patient's physical state and the type of ailment. Shiro Dhara offers mental and bodily relaxation, supporting brain waves, and feeding the mind. Clinical studies have shown its effectiveness in treating conditions such as ADHD, ADHD, and generalized anxiety disorder.

KEYWORDS: Shiro Dhara, Droni, Dhara Patra, Panchkarma, Parisheka.

INTRODUCTION

The Shiro Dhara is the application of a liquid to the scalp or forehead. A well-known Ayurvedic treatment, it is an age-old Panchkarma technique that can be performed using a

variety of medicines, including Taila, Takra, Kshira, Kwatha, and others. It would be known as Taila Dhara if we used ghee or treated tail.^[1] This Taila Dhara belongs to the Abhyanga, Seka, Pichu, and Basti kinds of Murdha Taila. "Uttarottar Gunaprada" is what they are informed.

Shiro Dhara, a form of Murdha taila, involves applying appropriate, medicated oil on the forehead and letting it drip over the scalp from a certain height.^[2]

Dhara's Synonyms

It indicates that liquid is continuously flowing from the pot's hole.

Dhara Sinchana Parisechana, Avasheka Sechana, and Seka Parisheka

Indication

We discovered evidence of Shiro Dhara in our ancient texts on a variety of illnesses, including Vepathu, Manas roga like Apasmar, Shiroroga, Anidra, Chittodvega, Manoavasada, Unmad, and Twak roga.

In cases of migraine, face paralysis, paralysis, jaw stiffness, ocular pain, anxiety neurosis, insomnia, and neuropsychological and psychosomatic diseases, Shiro Dhara is recommended.^[3] These days, it is frequently used to treat stress, psychosomatic conditions, different neurological conditions like epilepsy and chronic headaches, as well as other mental conditions including insomnia, psychosis, eczema, psoriasis, etc.

Contraindications

Shiro Dhara and Kaphaj Vikaras further raise Kapha, making the illness more challenging to treat. Additionally, people who have just undergone Sudhikarma (purification by Panchkarma) and those who are experiencing indigestion or Ajeerna should not take it.^[4]

Shiro-Dhara Method of Pouring a Liquid

There are three components to the Shiro Dhara technique.

- Pradhana Karma
- Paschat Karma
- Purva Karma

Purvakrama: The Preoperative Step

Purva Karma has to do with the patient's readiness. The patient's suitability for Shiro Dhara should be determined first. The following tools need to be necessary.

- Droni (Dhara table)
- Shiro Dhara pot, or Dhara Patra
- A dharavarti is a loose cotton thread wick.
- 1.5 liters of appropriate oil.

Additional needs include a piece of cloth, cotton, a pot, Rasnadi churna, etc. if the patient agrees, the hair on their scalp should be cut off. Urine and stool should be passed by the patient. The patient's blood pressure, temperature, and pulse should then be noted.

The patient's position

The patient should lie down for Shiro Dhara, and the Dhara Patra should be raised four inches above the patient's head. To prevent liquid from getting into the eyes, cotton should be placed over the ears and eyes. His head is propped up just a little, ideally on a piece of wood. Abhyanga, or oil massage, should be performed on the patient's face, neck, shoulder, and chest while a tiny amount of oil (10ml) is held over their head.

Droni (Table of Dhara)

A unique kind of table called a Droni (vessel) is utilized for Shiro Dhara. To prevent the oil from flowing, the table's four raised edges are fashioned of wood. This table has provisions at the head end that allow the poured oil to be collected and reused in a different receptacle.

Droni's dimensions (Dhara Table)

Here, the ancient measurements are transformed into modern ones to describe how Droni was constructed. The Droni can be seven feet long, two and a half feet wide, and two and a half feet high. The table is divided into two sections by a horizontal midline strip of 2½ feet of wood that forms a 3-inch high border on all sides of the table toward the head's edge. Shiro Dhara is performed on this tiny section of the table that faces the head. A circular copper plate with a central hole and a diameter of 6 inches may be mounted in the center, 3 inches from the horizontal line. It is possible to arrange for the oil to be collected in a vessel for future use.

To allow liquid to fall from the appropriate distance, the Dhara Patra should be suspended above the Shiro Dhara section of the table using a sturdy wire.^[5]

Shiro Dhara Pot, Or Dhara Patra

A vessel called a Dhara Patra is used to be placed for Shiro Dhara. It is made of clay, steel, brass, and other materials. The vessel should have a broad mouth and gradually tapering sides that taper to a central point at the bottom. At this stage, a hole could be created about the size of the little finger. The vessel may have a depth of 5 to 6 inches. The vessel may have a capacity of two liters. A tiny wooden bowl with a central hole should be placed within the vessel at the medial line, inversely to both of the vessel's holes. To keep the liquid flowing continuously, a wick should be inserted into this tiny vessel, hanging down from the large vessel and passing through both holes. The wick outside the jar should be four inches long. To keep the wick from falling out of the vessel, tie a knot at the top end. The Dhara Patra ought to be hung slightly over the patient's forehead. The patient's forehead should be three inches above the bottom end of the cotton wick. The recollected liquid is maintained in the vessel. To prevent spills, three holes should be drilled in the vessel's upper edge so that it hangs horizontally.

Aushadha (Drug)

The disease should be taken into consideration when choosing the medication (Aushadha). The amount needed is more than 1 to 2 kg. Sneha stated in accordance with the Dosha condition.^[6]

- **Vata Dosha:** Vataghna liquid and Tila Taila.
- **Pitta Dosha:** chilly water and ghrita.
- **Kapha dosha:** Tila-Taila water that is neither too hot nor too chilly.
- **Rakta Dosha:** Ghrita with chilly water.
- **Vata + Pitta + Rakta Dosha:** Ghrita + Taila in equal proportion.
- **Vata + Kapha + Rakta Dosha:** ½ part Ghrita + 1 part Tilataila.

Pradhana Karma: Methodology

The chosen liquid should be retained in the container and applied to the patient's forehead gradually and continually. To keep the flow consistent throughout the forehead, a gentle vibration should be used. When the liquid in the vessel is drained, the lower vessel is used in

its stead. This liquid is collected in the vessel that is kept beneath the table. The Dhara Patra should be filled with hot oil that has reached 40°C.

Dhara kala or Time

In Snigdha Kapha yukta Vata, the period is one Prahara or it should be up to the onset of perspiration, while in Pittayukta Vata, the patient has dryness and two Prahara. However, these days, it usually takes 45 to 60 minutes, depending on the patients' state.^[7] The patient must continue to lie on his back in this position. Treatment can be administered every day for seven to fourteen days, depending on the patient's physical state and the type of ailment. Treatment is often administered in the morning, ideally between 7 and 10 a.m.^[8]

The Time Needed to Change the Liquid

It is recommended that the milk used for Parisechana be replaced daily. Dhanyamla can be used for a maximum of three days. In three days, the oil should also be changed. Half of the oil is used in the first three days, half is used in the next three days, and on the seventh day, all of the first and second halves are combined, after which it ought to be thrown away.^[9]

Shiro Dhara can be done every day or every other day for someone with strong strength (Uttam Bala Purush), every two days for someone with medium strength (Madhya Bala Purush), and every four days for someone with very weak strength (Heena Bala Purush).^[10] The Drava's temperature is roughly 40°C, or Sukhoshna should be close to body temperature.

Karma Paschat: Post-Operative Techniques

A piece of cloth should be used to wipe away the oil from the head after doing Shiro Dhara. It is recommended to apply Rasnadi Choorna over the head. He needs to get rid of his cough and wash his eyes with cool water. He ought to accept the gentle breeze. He ought to take a short break. The body should then be rubbed with the Dhara's residual oil. After that, he ought to take a hot water bath. After that, he should drink water, eat a light meal, and use perfume, which is Siddha with Vatanashaka Aushadhi. He ought to eat the hot food. He ought to take Pathya for a maximum of seven days.

Warm water heated with cumin seeds, ginger, and Dhanyajiraka can be used for drinking. Just hot Washing should be done with water.

Guidelines for Diet and Lifestyle Following Treatment

The patient should refrain from physical exertion, mental agitation (such as wrath, grief, etc.), and exposure to dust, smoke, wind, dew, or cold. Avoiding activities that could put undue strain on the body and mind includes walking, driving at fast speeds, talking loudly or for extended periods of time, and other activities.^[11] It's also important to avoid sleeping during the day and standing for extended periods of time. Additionally, it is advised to sleep at night on a pillow that is neither too high nor too low. It is recommended to use Hitakara laghu ahara, or easily digestible food and to consume Takra or Yusha that has been prepared by adding black pepper, ghee, etc.^[12]

Parihara kala: Duration of Absence

He ought to accept Pathya and continue to be Jitendriya for the duration required to fulfill Dhār karma.

Dhara Dosha: Complications and Management

Dhara may cause burning in the body, discomfort in all joints, a propensity for bleeding, Jwara, Kotha, and etc. if it is performed from a higher altitude, too soon, or too slowly. The following actions could be taken in order to treat Dhara Dosha.^[13]

- 1) Gandusha
- 2) Nasya
- 3) Shunthi and Kashaya Pana
- 4) Yusha with black pepper and a light evening meal.
- 5) Basti, which contains Saindhava, ought to be administered on the third day.

Potential Shiro-Dhara Mode of Action

Shiro Dhara is a bodily purifying procedure that gets rid of the body's toxins and eliminates tension, anxiety, and any negative impacts on the central nervous system. Shiro Dhara balances the Prana Vayu around the head and relaxes the nervous system by working on the cerebral system.^[14]

It enhances the five senses, aids in the treatment of insomnia, stress, anxiety, depression, hair loss, exhaustion, and Vata imbalance, and leaves one feeling refreshed and at ease despite discomfort or difficulties during the day.^[15]

Patients in Shiro Dhara experience mental and bodily relaxation. The entire body tends to return to normal when the frontalis muscle relaxes, resulting in less CNS activity and a drop in brain cortisone and adrenaline levels; It supports brain waves, particularly alpha waves, and feeds the mind, even after you've relaxed.^[16]

More research is needed to determine whether Shiro Dhara directly affects the release of melatonin, a hormone that triggers sleep. Additionally, the supine position promotes relaxation. Stress and tension can result from an imbalance of Prana, Vyana Vayu, and Sadhaka Pitta.^[17]

Shiro Dhara uses the mechanical effects of these three Dosha subtypes to establish their functional integrity. As the endocrine system's master gland, the pituitary reacts to stress, anxiety, and other stimuli. Furthermore, Shiro Dhara induces relaxation on all levels and controls the neuro-endocrine system's operations through its penetrating effects.^[18]

Shiro Dhara's Advantages

Chronic daily headaches, sleeplessness, senile dementia, motor neuron disease, residual schizophrenia, anxiety disorders, depression, Parkinson's diseases, psychosomatic disorders (such as ulcerative colitis, peptic ulcer syndrome, and IBS), fibromyalgia syndrome, skin conditions, and generalized cerebral atrophy can all be effectively treated with Shiro Dhara.^[19] Shiro Dhara is a very successful treatment, and we have included the findings of several researches together with supporting data in this area.^[20]

Clinical Studies on Shiro Dhara and Their Results

1. Shiro Dhara's serum stress indicators significantly improved. It also brought forth a great deal of relief in the POMS Score grading process.
2. Brahmi oil and Shiro Dhara work wonders for mild to severe insomnia.
3. According to EEG data, Shiro Dhara has been shown to significantly lower heart rate, mean diastolic blood pressure, and respiratory rate while simultaneously increasing alpha rhythm and decreasing beta activity.^[21]
4. Shiro Dhara has a proven anxiolytic effect, as shown by the reduction in plasma noradrenaline and urine serotonin excretion. It is useful in the treatment of conditions such as pediatric attention deficit hyperactivity disorder, cerebellar ataxia, essential hypertension, psychological symptoms of menopause, premature ejaculation, generalized anxiety disorder, and insomnia.

5. Takrdhara, a form of Dhara treatment, has demonstrated a noteworthy function in alleviating diseases brought on by stress.^[22]
6. Shiro Dhara was found to be highly effective in reducing ADHD symptoms in a research.
7. When it comes to managing Vatika Shirah Shoola's stress headache, Shiro Dhara is incredibly successful.
8. Shiro Dhara was proven to be useful in treating children with attention-deficit/hyperactivity disorder (AD/HD) in a clinical investigation.^[23]
9. There is proof that Shiro Dhara, even when compared to Sarpagandha Vati, is highly efficient in treating essential hypertension.
10. According to one study, Shiro Dhara is highly successful in treating Anidra (insomnia) and fostering a sense of wellbeing in the patient without causing any negative or harmful side effects.
11. Shiro Dhara was found to be useful in the psycho-somatic therapy of Shukra Avrita Vata (premature ejaculation), including the number of penile thrusts, patient satisfaction, performance anxiety, voluntary control over ejaculation, and intra-vaginal ejaculatory latency time.^[24]
12. With particular reference to cerebral ischemic stroke, Shiro Dhara was found to be highly helpful in Pakshaghata. This therapy yielded notable improvements in the MPG gradation score and upper and lower limb strength in Pakshaghata.
13. Shiro Dhara was proven to be highly beneficial in treating stress-induced sleeplessness (Anidra) in a clinical trial.
14. Ksheerdhara was proven to be useful in lowering both the diastolic and systolic blood pressure as well as easing the symptoms of essential.^[25]

DISCUSSION and CONCLUSION

Shiro Dhara is an ancient Ayurvedic treatment that involves applying medicated oil to the scalp or forehead. It is part of the Abhyanga, Seka, Pichu, and Basti types of Murdha Taila. The technique is recommended for treating various illnesses, including migraine, face paralysis, paralysis, jaw stiffness, ocular pain, anxiety neurosis, insomnia, and neuropsychological and psychosomatic diseases.^[26]

The Shiro Dhara method consists of three components: Pradhana Karma, Paschat Karma, and Purva Karma. The patient's suitability for Shiro Dhara is determined through Purva Karma, which includes a Droni (Dhara table), a Dhara Patra (Shiro Dhara pot, or Dhara Patra), a

wick, and 1.5 liters of appropriate oil.^[27] The patient's head should be propped up, and Abhyanga, or oil massage, should be performed on their face, neck, shoulder, and chest while a small amount of oil is held over their head.

A unique type of table called a Droni (vessel) is used for Shiro Dhara, with dimensions of 7 feet long, 2 and a half feet wide, and 2 and a half feet high.^[28] The Dhara Patra is placed in a vessel made of clay, steel, brass, and other materials, with a broad mouth and gradually tapering sides. A wick is inserted into the vessel to keep the liquid flowing continuously.

The chosen liquid is applied gradually and continually to the patient's forehead, with a gentle vibration to maintain consistency. The Dhara Patra should be filled with hot oil at 40°C. The treatment can be administered daily for seven to fourteen days, depending on the patient's physical state and the type of ailment. It is recommended to replace the milk used for Parisechana daily and Dhanyamla for a maximum of three days.

Shiro Dhara is a treatment method that involves using oil to purify the body and eliminate toxins, tension, anxiety, and negative impacts on the central nervous system. It balances the Prana Vayu around the head and relaxes the nervous system by working on the cerebral system.^[29] It helps treat insomnia, stress, anxiety, depression, hair loss, exhaustion, and Vata imbalance, leaving individuals feeling refreshed and at ease.

Patients in Shiro Dhara experience mental and bodily relaxation, with the frontalis muscle relaxing and reducing brain cortisone and adrenaline levels. The treatment also supports brain waves, particularly alpha waves, and feeds the mind even after relaxation.^[30] More research is needed to determine whether Shiro Dhara directly affects the release of melatonin, a hormone that triggers sleep.

Clinical studies have shown that Shiro Dhara has several advantages, including improved serum stress indicators, relief in POMS Score grading, effective treatment for mild to severe insomnia, lower heart rate, mean diastolic blood pressure, respiratory rate, anxiolytic effect, and effectiveness in treating conditions such as pediatric attention deficit hyperactivity disorder, cerebellar ataxia, essential hypertension, psychological symptoms of menopause, premature ejaculation, generalized anxiety disorder, and insomnia.^[31]

Takrdhara, a form of Dhara treatment, has demonstrated significant function in alleviating diseases brought on by stress, ADHD symptoms, and generalized anxiety disorder. Shiro

Dhara has been proven to be highly effective in treating children with attention-deficit/hyperactivity disorder (AD/HD), essential hypertension, Anidra (insomnia), psychosomatic therapy of Shukra Avrita Vata, and Pakshaghata.^[32]

In conclusion, Shiro Dhara is a successful treatment method that can help alleviate various health issues, including chronic daily headaches, sleeplessness, senile dementia, motor neuron disease, residual schizophrenia, anxiety disorders, depression, Parkinson's diseases, psychosomatic disorders, fibromyalgia syndrome, skin conditions, and generalized cerebral atrophy.

REFERENCES

1. Singh K, Layeeq S, Amit. An Evidence-Based Review on Shirodhara: A Unique Panchakarma Therapy. *Int J Ayurveda Pharma Res.*, Aug. 9, 2022; 52–6.
2. Vijaya Gavali. Anatomical view of administration route of Murdha Taila. *J Ayurveda Integr Med Sci.*, Aug. 27, 2024; 9(6): 215–21.
3. Gupta N, Mangal G. A CONCEPTUAL STUDY ON SHIRODHARA PROCEDURE. *Int J Res Ayurveda Pharm.*, Aug. 14, 2019; 10: 10–2.
4. Dhuri KD, Bodhe PV, Vaidya AB. Shirodhara: A psycho-physiological profile in healthy volunteers. *J Ayurveda Integr Med.* Jan., 2013; 4(1): 40–4.
5. Singh K, Madan A, Layeeq S. International Journal of Ayurveda and Pharma Research AN EVIDENCE-BASED REVIEW ON SHIRODHARA: A UNIQUE PANCHAKARMA THERAPY, Jul. 7, 2022; 10: 52–6.
6. Junjarwad AV, Savalgi PB, Vyas MK. Critical review on Bhaishajya Kaala (time of drug administration) in Ayurveda. *Ayu.*, Jan. 2013; 34(1): 6–10.
7. Thakkar J, Chaudhari S, Sarkar PK. Ritucharya: Answer to the lifestyle disorders. *Ayu.*, Oct. 2011; 32(4): 466–71.
8. Nieuwlaat R, Wilczynski N, Navarro T, Hobson N, Jeffery R, Keenanasseril A, et al. Interventions for enhancing medication adherence. *Cochrane Database Syst Rev.*, Nov. 20, 2014; 2014(11): CD000011.
9. Ranasinghe S, Ediriweera ERHSS. Effects of Dhanyamla Parisheka in the management of Amavata with special reference to Rheumatoid arthritis-A Case Study, May 1, 2015; 3.
10. Singh K, Layeeq S, Amit. An Evidence-Based Review on Shirodhara: A Unique Panchakarma Therapy. *Int J Ayurveda Pharma Res.*, Aug. 9, 2022; 52–6.

11. Sharma A, Madaan V, Petty FD. Exercise for mental health. *Prim Care Companion J Clin Psychiatry*, 2006; 8(2): 106.
12. Menon S, Naik R, Patwardhan R, Joshi V, Sharma A, Namewar P, et al. A STUDY ON THERAPEUTIC EFFECTS OF YUSHA KALPANA., Oct. 2, 2022; 93: 25–50.
13. Taylor AT. High-altitude illnesses: physiology, risk factors, prevention, and treatment. *Rambam Maimonides Med J.*, Jan. 2011; 2(1): e0022.
14. Dhuri KD, Bodhe PV, Vaidya AB. Shirodhara: A psycho-physiological profile in healthy volunteers. *J Ayurveda Integr Med.*, Jan. 2013; 4(1): 40–4.
15. Speers AB, Cabey KA, Soumyanath A, Wright KM. Effects of *Withania somnifera* (Ashwagandha) on Stress and the Stress- Related Neuropsychiatric Disorders Anxiety, Depression, and Insomnia. *Curr Neuropharmacol*, 2021; 19(9): 1468–95.
16. Rajan S, Shamkuwar MK, Tanwar AK. Impact of Shirodhara on biological markers of stress: A case study. *J Ayurveda Integr Med.*, Mar. 2021; 12(1): 178–81.
17. Vinjamury SP, Vinjamury M, der Martirosian C, Miller J. Ayurvedic therapy (shirodhara) for insomnia: a case series. *Glob Adv Health Med.*, Jan. 2014; 3(1): 75–80.
18. Dhuri KD, Bodhe PV, Vaidya AB. Shirodhara: A psycho-physiological profile in healthy volunteers. *J Ayurveda Integr Med.*, Jan. 2013; 4(1): 40–4.
19. Maristany AJ, Sa BC, Murray C, Subramaniam AB, Oldak SE. Psychiatric Manifestations of Neurological Diseases: A Narrative Review. *Cureus.*, Jul. 2024; 16(7): e64152.
20. Gupta N, Mangal G. A CONCEPTUAL STUDY ON SHIRODHARA PROCEDURE. *Int J Res Ayurveda Pharm.*, Aug. 14, 2019; 10: 10–2.
21. Vinjamury SP, Vinjamury M, der Martirosian C, Miller J. Ayurvedic therapy (shirodhara) for insomnia: a case series. *Glob Adv Health Med.*, Jan. 2014; 3(1): 75–80.
22. Uebaba K, Xu FH, Ogawa H, Tatsuse T, Wang BH, Hisajima T, et al. Psychoneuroimmunologic Effects of Ayurvedic Oil-Dripping Treatment. *J Altern Complement Med N Y N.*, Dec. 1, 2008; 14: 1189–98.
23. Singh K, Layeeq S, Amit. An Evidence-Based Review on Shirodhara: A Unique Panchakarma Therapy. *Int J Ayurveda Pharma Res.*, Aug. 9, 2022; 52–6.
24. Vinjamury SP, Vinjamury M, der Martirosian C, Miller J. Ayurvedic therapy (shirodhara) for insomnia: a case series. *Glob Adv Health Med.*, Jan. 2014; 3(1): 75–80.
25. Masatkar P. CLINICAL EFFECT OF SHIRODHARA IN PAKSHAGHAT WITH SPECIAL REFERENCE TO CEREBRAL ISCHEMIC STROKE. *Int J Res Ayurveda Pharm.*, Sep. 8, 2018; 9: 17–20.

26. Singh K, Madan A, Layeeq S. International Journal of Ayurveda and Pharma Research AN EVIDENCE-BASED REVIEW ON SHIRODHARA: A UNIQUE PANCHAKARMA THERAPY, Jul. 7, 2022; 10: 52–6.
27. Rajan S, Shamkuwar MK, Tanwar AK. Impact of Shirodhara on biological markers of stress: A case study. J Ayurveda Integr Med., Mar. 2021; 12(1): 178–81.
28. Singh K, Layeeq S, Amit. An Evidence-Based Review on Shirodhara: A Unique Panchakarma Therapy. Int J Ayurveda Pharma Res., Aug. 9, 2022; 52–6.
29. Singh K, Layeeq S, Amit. An Evidence-Based Review on Shirodhara: A Unique Panchakarma Therapy. Int J Ayurveda Pharma Res., Aug. 9, 2022; 52–6.
30. Kavita Kumari, Santosh Kumar Bhatted. Effect of Ashwagandha Kwatha Dhara in Anidra - A Case Series. J Ayurveda Integr Med Sci., Jul. 29, 2023; 8(6): 283–8.
31. Vinjamury SP, Vinjamury M, der Martirosian C, Miller J. Ayurvedic therapy (shirodhara) for insomnia: a case series. Glob Adv Health Med., Jan. 2014; 3(1): 75–80.
32. Singhal HK, Neetu, Kumar A, Rai M. Ayurvedic approach for improving reaction time of attention deficit hyperactivity disorder affected children. Ayu., Jul. 2010; 31(3): 338–42.