



Review Article

Volume 15 Issue 06

June 2026

ROLE OF GODUGDHA SHIRODHARA IN THE MANAGEMENT OF ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD) IN CHILDREN: AN AYURVEDIC PERSPECTIVE

*Dr. Pankaj Dubey¹, Dr. Amit Madhukar Patil²

¹P.G. Scholar, P.G. Department of Kaumarbhritya, Shri Dhanwantri Ayurvedic Medical College & Research Centre, Mathura (UP).

²H.O.D. & Professor, P.G. Department of Kaumarbhritya, Shri Dhanwantri Ayurvedic Medical College & Research Centre, Mathura (UP).

*Corresponding Author's Email ID - Pravindubey366@gmail.com

ABSTRACT

Attention Deficit Hyperactivity Disorder (ADHD) is one of the most prevalent neurodevelopmental disorders affecting children worldwide. It is characterized by inattention, hyperactivity, and impulsivity, which adversely affect academic performance, social relationships, and emotional well-being. Although pharmacological treatments are effective in symptom management, concerns regarding adverse effects and long-term use have encouraged exploration of complementary therapies. Ayurveda, the traditional system of Indian medicine, offers a holistic approach to mental and behavioral disorders through regulation of bodily and psychological functions. Godugdha Shirodhara, a therapeutic procedure involving continuous pouring of cow's milk over the forehead, is considered beneficial in balancing Vata and calming the mind. This article reviews the Ayurvedic understanding of ADHD and explores the potential role of Godugdha Shirodhara in its management.

Keywords: ADHD, Ayurveda, Godugdha Shirodhara, Manasika Vikara, Child Psychology

INTRODUCTION

Childhood represents a critical period for physical, cognitive, emotional, and social development. Any disturbance during this phase can significantly influence an individual's future health and quality of life. Ayurveda recognizes the importance of child health through the specialized branch of **Kaumarbhritya**, which deals with child care, growth, development, and pediatric disorders.

Attention Deficit Hyperactivity Disorder (ADHD) is a common neurobehavioral disorder characterized by persistent patterns of inattention, hyperactivity, and impulsive behavior. Children with ADHD often experience difficulties in academic achievement, interpersonal relationships, behavioral regulation, and self-esteem. The increasing prevalence of ADHD and limitations associated with conventional therapies have led researchers to investigate alternative treatment approaches.

Ayurveda emphasizes the harmonious functioning of the body, mind, and consciousness. Although ADHD is not directly described in classical Ayurvedic texts, several behavioral and cognitive disturbances mentioned under Manasika Vikara and Vata Prakopa resemble the clinical manifestations of ADHD. Among the therapeutic interventions described in Ayurveda, Shirodhara has gained considerable attention for its calming effects on the nervous system.

ADHD: Modern Perspective

ADHD is one of the most frequently diagnosed neurodevelopmental disorders in school-aged children. According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), the disorder is characterized by symptoms of inattention, hyperactivity, and impulsivity that interfere with daily functioning.

Clinical Features

Common symptoms include:

- Difficulty sustaining attention
- Frequent distraction
- Excessive talking
- Restlessness and fidgeting
- Impulsive actions

- Poor organizational skills
- Difficulty following instructions
- Academic underachievement

Etiological Factors

Several factors contribute to ADHD:

Neurochemical Factors

Research suggests abnormalities in neurotransmitter systems, particularly dopamine and norepinephrine pathways, which regulate attention and executive functions.

Prematurity and Low Birth Weight

Children born prematurely or with low birth weight have a significantly increased risk of developing ADHD due to altered brain development and perinatal complications.

Obstetric Complications

Perinatal hypoxia, birth trauma, and obstetric complications may adversely affect neurological development and increase susceptibility to ADHD.

Head Injury

Traumatic brain injuries, particularly involving frontal and basal ganglia regions, have been associated with secondary ADHD symptoms.

Ayurvedic Understanding of ADHD

Although ADHD is not explicitly described in Ayurvedic literature, its symptomatology closely resembles conditions involving disturbances of **Manas**, **Buddhi**, **Smriti**, and **Vata Dosh**.

Ayurveda attributes mental and behavioral disorders to impairment of:

- **Dhee (Intellect)**
- **Dhriti (Retention and Control)**
- **Smriti (Memory)**

When these faculties become disturbed, improper interaction between sensory organs and their objects occurs, leading to abnormal behavior and cognitive dysfunction.

Correlation with Ayurvedic Concepts

The following Ayurvedic descriptions may be correlated with ADHD:

- Anavasthita Chittatva (unstable mind)
- Mano Vibhrama (mental confusion)
- Buddhi Vibhrama (intellectual disturbance)
- Smriti Vibhrama (memory impairment)
- Cheshta Vibhrama (abnormal activity)
- Achara Vibhrama (behavioral abnormalities)

Role of Vata Dosha

Vata governs all neurological and psychological activities. Aggravation of Vata may result in:

- Anxiety
- Restlessness
- Impulsivity
- Insomnia
- Poor concentration

These manifestations closely resemble ADHD symptomatology.

Concept of Manas in Ayurveda

Ayurveda considers **Sharira (Body), Manas (Mind), and Atma (Soul)** as the three pillars of life. Among these, Manas occupies a central role because it coordinates sensory perception, cognition, and behavior.

According to Acharya Charaka, Manas is responsible for the presence or absence of knowledge and perception. Any disturbance in Manas can lead to psychological and behavioral disorders. Therefore, therapies aimed at stabilizing Manas are important in the management of ADHD.

GODUGDHA SHIRODHARA

Definition

Shirodhara is a Panchakarma procedure in which a continuous stream of medicated liquid is poured over the forehead from a specific height for a predetermined duration. In Godugdha Shirodhara, cow's milk (Godugdha) is used as the therapeutic medium.

Properties of Godugdha

According to Ayurveda, cow's milk possesses the following qualities:

- Madhura Rasa (sweet taste)
- Sheeta Virya (cool potency)
- Snigdha (unctuous)
- Guru (nourishing)
- Rasayana (rejuvenating)
- Vata-Pitta Shamaka (pacifies Vata and Pitta)

These properties make it beneficial in neurological and psychological disorders associated with Vata aggravation.

Probable Mode of Action of Godugdha Shirodhara

The therapeutic effects of Shirodhara may be explained through both Ayurvedic and modern perspectives.

Ayurvedic Perspective

- Pacifies aggravated Vata Dosha.
- Calms Manas and stabilizes mental functions.
- Enhances Dhee, Dhriti, and Smriti.
- Promotes relaxation and sound sleep.
- Reduces mental stress and anxiety.

Modern Perspective

The continuous flow of liquid over the forehead creates gentle pressure and vibration, which may influence the autonomic nervous system.

Potential effects include:

- Reduction in sympathetic overactivity
- Enhancement of parasympathetic functions
- Increased serotonin secretion
- Improved melatonin regulation

- Reduction in stress hormones
- Better sleep quality and emotional stability

These neurophysiological changes may contribute to improved attention, behavioral control, and cognitive functioning in children with ADHD.

CLINICAL SIGNIFICANCE

The use of Godugdha Shirodhara may provide several benefits in ADHD management:

- Improved attention span
- Reduced hyperactivity
- Better impulse control
- Enhanced sleep quality
- Improved academic performance
- Reduction in anxiety and emotional instability

As a non-invasive and well-tolerated procedure, it can be considered a supportive therapy alongside behavioral interventions and educational support.

DISCUSSION

ADHD is a multifactorial disorder involving cognitive, behavioral, and emotional dysfunction. Ayurveda emphasizes correction of underlying doshic imbalance and restoration of mental equilibrium rather than merely suppressing symptoms.

The symptom complex of ADHD can be interpreted as a manifestation of Vata aggravation affecting Manas and higher cognitive faculties. Godugdha Shirodhara, through its Vata-pacifying and mind-calming effects, may help restore neuropsychological balance.

Furthermore, the procedure promotes relaxation and may modulate neurochemical pathways associated with attention and behavior. Therefore, it represents a promising integrative therapeutic approach in pediatric ADHD management.

CONCLUSION

ADHD is a common neurodevelopmental disorder that significantly affects the academic and social life of children. Ayurvedic principles provide a holistic understanding of the disorder through disturbances of Manas, Dhee, Dhriti, Smriti, and Vata Dosha. Godugdha Shirodhara,

owing to its calming, nourishing, and Vata-pacifying properties, may offer beneficial effects in improving attention, reducing hyperactivity, and enhancing overall mental well-being. Further large-scale clinical studies are required to establish its efficacy and mechanism of action scientifically.

REFERENCES

1. Agnivesha. *Charaka Samhita*. Edited by Vaidya Jadavaji Trikamji Acharya. Reprint ed. Varanasi: Chaukhambha Surbharati Prakashan; 2022.
2. Sharma H, editor. *Kashyapa Samhita (Vridha Jivakiya Tantra)*. Reprint ed. Varanasi: Chaukhambha Sanskrit Series Office; 2021.
3. Sushruta. *Sushruta Samhita*. Edited by Ambikadatta Shastri. Reprint ed. Varanasi: Chaukhambha Sanskrit Sansthan; 2021.
4. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 5th ed., text revision (DSM-5-TR). Washington (DC): American Psychiatric Association Publishing; 2022.
5. Biederman J, Faraone SV. Attention-deficit hyperactivity disorder. *Lancet*. 2005;366(9481):237-48.
6. Barkley RA. *Attention-Deficit Hyperactivity Disorder: A Handbook for Diagnosis and Treatment*. 4th ed. New York: Guilford Press; 2015.
7. Polanczyk GV, Salum GA, Sugaya LS, Caye A, Rohde LA. Annual research review: A meta-analysis of the worldwide prevalence of mental disorders in children and adolescents. *J Child Psychol Psychiatry*. 2015;56(3):345-65.
8. Sharma PV. *Dravyaguna Vijnana*. Vol. II. Reprint ed. Varanasi: Chaukhambha Bharati Academy; 2020.
9. 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*. 2008;14(10):1189-98.
10. Rani M, Reddy KR, Reddy S. Role of Shirodhara in stress-related disorders: A review. *AYU*. 2013;34(4):347-52.