



# AN AYURVEDIC APPROACH TO ATTENTION DEFICIT HYPERACTIVITY DISORDER - REVIEW ARTICLE

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## ABSTRACT:

Attention deficit /hyperactivity disorder (ADHD) manifests in childhood with symptoms of hyperactivity, impulsivity and /or inattention. It is most widespread neurobehavioral disorder as well as non -psychiatric disorders in children, one of the most common chronic illness affecting school -aged children and most thoroughly researched neurodevelopment disorder in children. According to DSM-5, Attention-Deficit /Hyperactivity Disorder is characterized by persistent pattern of inattention or hyperactivity/impulsivity. Academic, cognitive, behavioural, emotional, and social functioning of the child are also affected.

Though ADHD is not directly mentioned in classics but description of abnormal behaviour though are found scattered in our text like: *Anavasthita Chittatva*, *Mano vibhrama*, *Buddhivibhrama*, *Smirtivibhrama*, *Sheelavibhrama*, *Chestavibhrama*, these can be closely resemble some of clinical features and associated features of ADHD.

ADHD can be manifested as a *Vata -Pitta* predominant disorder. In this *Manovahasrotodusti* occur and develops derangement of all activities of *Manas* (mind), *Buddhi* (intellect), *Ahankara* (ego) and *Indriyas* (sense organs). According to *Ayurveda* the main reason to ADHD is vitiation of *Dhi* (rational thinking), *Dhriti* (intellect / retaining power of the mind) and *Smriti* (memory) which causes abnormality and abnormal conduct resulting into improper contact of the senses with their objective and give rise to inattention, hyperactivity and impulsivity.

**Keywords:** *Manovahasrotodusti*, *Anavasthita Chittatva*, *Manovibhrama*, *Buddhivibhrama*, *Smirtivibhrama*, *Sheelavibhrama*, *Chestavibhrama*,

## INTRODUCTION:

Every incidence in the childhood has an influence on the adult life, so healthy childhood is mandatory for expecting a healthy adulthood. Among the most common emotional and behavioral illness affecting children and adolescents are disorders of attention and activity. Attention Deficit/Hyperactivity Disorder (ADHD) is one such complex neuro-behavioural disorder that affect not only the life of child, it potentially affects the harmony, social setup and even economical responsibilities of the family. ADHD is defined by a persistent pattern of inattention or hyperactivity/impulsivity, according to the Diagnostic and Statistical Manual for Mental Disorders (DSM-5) of the American Psychiatric Association (APA). Motor overactivity and restlessness are present, as well as a diminished ability to self-inhibit<sup>[1]</sup>. It is a neuro-developmental type of brain disorder, specially involving **dopamine and nor epinephrine neurotransmitter** which govern variety type of cognitive process. Symptom begin usually with 6 years of age present for at least 6 months with impairment of child development<sup>[2]</sup>.

Affected children usually experience academic under achievement, problem with interpersonal relationship with family members, peers and have a low self-esteem. Many studies have found evidence that suggests that children with ADHD manifest social skills deficit with peers because of (disruptiveness and poor impulse control) this poor developmental social skills can have a negative side e.g. substance abuse, difficulty maintain relationships encounters with law, death from suicide.

It is one of the most prevalent neurodevelopmental disorders, with an increasing incidence rate. The Estimate prevalence rate of attention deficit hyperactivity disorder (ADHD), worldwide have generally reported that 5-10% of school-age children are affected. In Uttarakhand prevalence was found to be 11.8% based on teachers' tool only and 1.75% based on the parent and teachers tool combined<sup>[3]</sup>. ADHD was found to be significantly more in males compared to females 3.5:1. Inattention was the most prevalent subtype of ADHD. The DSM5 divides symptoms into two subtypes: inattentiveness and hyperactivity/impulsivity. While hyperactivity includes always being on the go and being fidgety, inattention includes careless blunders, not listening to instructions, easily being side-tracked, etc., while impulsivity comprises intrusive, interruptive conduct, cannot wait for turn.

Many treatment modalities are explained in modern system of medicine like psychostimulant but none of them are totally effective in curing the disease, more over they have their own side effect.

### **Ayurveda and ADHD**

In *Ayurveda* there are no direct references of ADHD but some references about abnormal behaviour are discussed under features of *Unmada Vyadhi- Mano Vibhrama, Buddhi Vibhrama, Smriti Vibhrama, Achara Vibhrama, Cheshta Vibhrama*<sup>[4]</sup>. It is a *Vata-Pitta Pradhan Sarva-Dosha (Sharirik+Mansik) Prakopak Vyadhi*. This is a *Manovaha Sroto Vikara* with predominance of *Raja* and *Tama guna*. In this derangement of all activities of *Manas, Buddhi, Ahankara*, and *Indriyas* occur. where thought disturbance in form of abnormalities of *Chintana, Vichara* and *Uha*, derangement of memory in the form of *Smirti Nasa* and *Smirti Bhrmsha*, behavioral, social and emotional disturbances in the form of abnormalities of *Achara, Dharma* and *Bhavas* along with functional derangement of *Indriyas* which is manifested clinically as disturbed speech, *Abaddha Vakya, Hridaya Shunyata*<sup>[5]</sup>. *Acharya Kashyap* in *Vedna-Adhyay* has also mentioned *Pralap, Vaichitya, Arti* in *Unmada Vyadhi*<sup>[6]</sup>. The causes may be the vitiation of *Dhee* (rational thinking), *Dhriti* (intellect/retaining power of mind), *Smriti* (memory) which leads to improper contact of senses with their objectives. As *Tridosha, Triguna*, and *Mana* are inter-related with each other and *Vata* is responsible for vitiation of *Sharirika* as well as *Mansika Dosha*, thus produce disease.

**MATERIAL AND METHOD-** The materials were collected from the classical *Ayurvedic* literatures and modern text books.

### **Probable Nidana of ADHD<sup>[7]</sup>:**

As the hyperactivity and Inattention are the symptom so the *Nidana* that vitiate *Mana* and *Vata* may be considered as causes of ADHD.

#### **1. Agantuja Hetu:**

- i. *Bhutaveshaja*
- ii. *Shriobhigat (Akala Pravahan)*
- iii. *Vishajanya*

#### **2. Nija Hetu:**

<b>Sahaja (inherited)</b>	<b>Garbhaja (Antenatal)</b>	<b>Janmottara (postnatal)</b>
Related to <i>Atmakarma</i>	<i>Ashaya Dosha</i>	<i>Pragyaapradha</i>
Related <i>Aatmaja Sattwaja &amp; Satmayaja</i>	<i>Matuahara</i>	<i>Asatmendriarthasamyoga</i>
Related <i>Beeja, Beejbhaga &amp; Beejbhagavayava</i>	<i>Matuvihara</i>	<i>Ahara</i>
	<i>Dauhridaya</i>	<i>Nidra</i>
		<i>Manasika</i>

All the above factors combinedly or separately are responsible for vitiation of *Doshas* and thus cause the disease.

### **Probable Correlation Of ADHD Symptoms in Ayurveda :-**

#### **INATTENTIVE TYPE:**

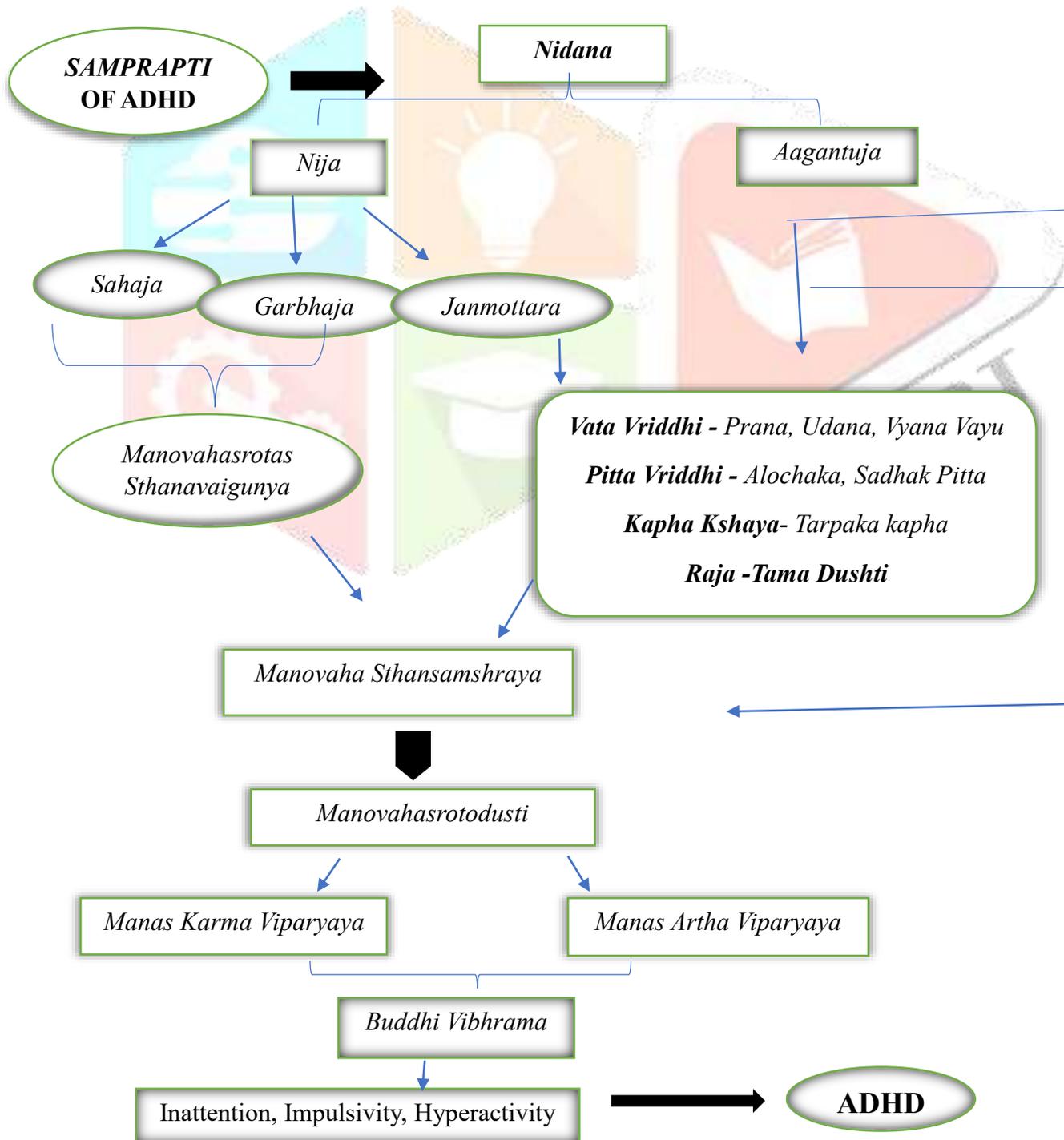
<b>ADHD SYMPTOMS</b>	<b>LAKSHAN IN AYURVEDA<sup>[8]</sup></b>
1) Fails to give close attention to details or makes careless mistakes in schoolwork	<i>Mano Vibhrama</i>
2) Has difficulty sustaining attention in tasks or play activities.	<i>Mano Vibhrama</i>
3) Does not seems to listen when spoken to directly	<i>Mano Vibhrama</i>
4) Has difficulty organizing tasks and activities.	<i>Buddhi Vibhrama</i>
5) Avoids task (e.g., schoolwork, homework) that require sustained mental effort.	<i>Buddhi Vibhrama</i>
6) Is forgetful in daily activities.	<i>Smirti Vibhrama</i>

**HYPERACTIVE/ IMPULSIVITY:**

ADHD SYMPTOMS	LAKSHANA IN AYURVEDA <sup>[8]</sup>
7) Runs about or climb excessively in situation in which it is inappropriate.	<i>Acharavibhrama</i>
8) Has difficulty playing or engaging in leisure activities quietly.	<i>Acharavibhrama</i>
9) Blurts out answers before questions have been completed.	<i>Chestavibhrama</i>
10) Interrupts or intrudes others.	<i>Chestavibhrama</i>
11) Has difficulty awaiting turn.	<i>Chestavibhrama</i>

**SAMPRAPTI:**

Probable pathophysiology of ADHD according to *Ayurveda*:



**SAMPRATI GHATAK:**

<i>Dosha</i>	<i>Sharirika -Prana, Udana &amp; Vyana Vayu, Sadhaka, Alochaka Pitta Manshika -Raja, Tama</i>
<i>Dushya</i>	<i>Mana</i>
<i>Srotasa</i>	<i>Manovaha</i>
<i>Srotodusti</i>	<i>Atipravriti</i>
<i>Agni</i>	<i>Vishamagni</i>
<i>Adhithana</i>	<i>Hridaya</i>

**In modern view:**

ADHD is characterized by inattention, including increased distractibility and difficulty sustaining attention, poor impulse control and decreased self-inhibitory capacity and motor over activity and motor restlessness<sup>[9]</sup>. In the DSM-5, the defining symptoms of ADHD are divided into symptoms of inattention (11 symptoms) and hyperactivity/impulsivity (9 symptoms). The former differentiation between subtypes in the DSM-IV proved to be unstable and to depend on the situational context, on informants, or on maturation, and was therefore replaced by “presentations.<sup>[10]”</sup> Thus, the DSM-5 distinguishes between different presentations of ADHD: predominantly inattentive (6 or more out of 11 symptoms present), predominantly hyperactive/impulsive (6 or more out of 9 symptoms present), and combined presentation (both criteria fulfilled), as well as a partial remission category. Symptoms have to be present in two or more settings before the age of 12 years for at least 6 months and have to reduce or impair social, academic, or occupational functioning. There are several strategies to control ADHD, but pharmacotherapy, which includes psychostimulant medications like amphetamine/methylphenidate and tricyclic antidepressants (TCAs) like imipramine and nortriptyline, is the usual method. These medications have several serious adverse effects, such as loose stools, anorexia, sleeplessness, and others with methylphenidate, while convulsions, weight gain, and other anticholinergic symptoms can occur with TCAs. These authorised ADHD drugs frequently have disappointing outcomes.

**DISCUSSION AND CONCLUSION:**

It can be concluded that **ADHD** is a behavioural disorder with dominance of *Vata-Pitta Pradhan Sarva-Dosha (Sharirik+Mansik)*. In this *Manovahasrotas dusthi* occur with predominance of *Raja* and *Tama guna*. Hence, line of treatment will include *Snehana, Svedana to Basti Karma*, and *Medhya Rasayans* are used as *Shaman Chikitsa* for these types of disorders. It will increase the cognitive function of mind. Multimodal approach will be very effective in treating ADHD. Therefore, stressing on having an optimistic outlook and compassion for all life, this therapeutic approach can be used by each person to improve the standard of life. Ayurveda is not just about treating a disease; it's about treating the root cause and never happening of the same disease.

**References:**

1. Dr. Shraddha Kumawat<sup>1</sup>, Dr. Rakesh Kumar Nagar<sup>2</sup>, Dr. Vishal Nandlal Prajapati<sup>3</sup>, Dr. Ashok Pushkar<sup>4</sup>, Dr. Simmi rani<sup>5</sup>, Dr. Raj kumar<sup>6</sup>: Role of ayurveda in ADHD: A critical review article ,National Institute of Ayurveda, Jaipur,Rajasthan,in [www.wjpst.com](http://www.wjpst.com) in June 2023
2. O. Pghai, gupta Piyush, paulv.k.Ghai Essential pediatrics 6<sup>th</sup> edition, revised reprint with corrections:2005, chapter 2, page no.64.
3. Gurpeet kaur chawla, Ruchi Juyal, Deepshikha, Javanti Semwal, Shailesh Tripathi, Sudip Bhattacharya, Attention deficit hyperactivity disorder and associated learning difficulties among primary school children in district Dehradun, Uttarakhand, India Educ Health Promot 2022 March.
4. Pandit. Kashi nathpandey, Dr. Chaturvedi gorkhnath, *Charak Samhita Nidana Sthana* chapter 7/5, chaukhamba bharti academy p.656.
5. Tripathi J.S., Deole Y.S. *Charak Shamita Nidana Sthana* chapter 7. *Charak Samhita* Research, Training and Skill Development Centre, 2020.
6. Sharma pandit Hemraj, Vidyotini Hindi Commentary Kashyap Samhita, Sutra Sthan ,Vedna-adhyay, Chaukhambha Sanskrit Sansthan Varanasi, Reprint 2018, 25/20 shlok p.50.
7. Bhat Chetali, A Pharmaco-clinical study on the management of *Mandukparani* in ADHD. Gujarat Ayurved University, Jamnagar ,2006.
8. Sharma P.V., Caraka-Samhita Of Agnivesa Part 1, Nidana sthan, *Unmada-Nidana*, Chaukhamba Sanskrit Pratishthan, reprint year 2017, 7/7 shlok, Pg no. 532.
9. DSM-IV
10. Willcutt E G, Nigg J T, Pennington B F. Validity of DSM-IV attention deficit/hyperactivity disorder symptom dimensions and subtypes. *J Abnorm Psychol.* 2012;121(04):991–1010