



ORIGINAL RESEARCH PAPER

Ayurveda

A CASE STUDY OF ADHD WITH AYURVEDIC MANAGEMENT.

KEY WORDS: *Ayurvedic* approach in ADHD, Vataja Unmaad, Shirodhara, Panchakarma in paediatric, Shamanaoushadhis.

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ABSTRACT
 Attention-deficit hyperactivity disorder (ADHD) is a commonly diagnosed childhood disorder characterized by impulsivity, inattention, and hyperactivity. The prevalence of ADHD among primary school children was found to be 11.32%. Prevalence was found to be higher among the males (66.7%) as compared to that of females (33.3%). Scientists are not sure what causes ADHD, although many studies suggest that genes play a large role. Like many other illnesses, ADHD probably results from a combination of factors. As modern medicine has failed to provide a cure for a variety of health problems, more and more people are turning to the alternative and complementary medical sciences, especially *Ayurveda*, in search of relief. Among the problems for which modern medicine has failed to find a solution are the behavioural or psychiatric disorders of childhood. ADHD cannot be compared directly to any disease in *Ayurveda*, but it can be treated as Vataja Unmaad, as the symptoms appeared similar. After seeing the condition of the child Shirodhara, Matra Basti and Shamanaoushadhis were advised. Here, an effort was made to treat a 6 year-old male child with ADHD using multiple *Ayurveda* treatment modalities. At the end of treatment, *Panchakarma* procedures along with internal medication resulted in remarkable improvement.

INTRODUCTION:

Attention deficit hyperactivity disorder (ADHD) is a behavioural disorder of children that comprises perhaps 50% of referrals to child neurologists, behavioural paediatricians, and child psychiatrists. It is characterized by inattention, with increased distractibility and difficulty in sustaining attention, poor impulse control, and decreased self-inhibitory capacity, as well as motor over activity and motor restlessness.[1]. A number of factors may contribute to ADHD such as Genes, Low birth weight, Brain injury, Cigarette smoking, use of alcohol or drug by mother during pregnancy, Exposure to environmental toxins, such as high levels of lead, at a young age.

Child with ADHD show an on-going pattern of three different types of symptoms[2]:

- A. Difficulty paying attention (inattention)
- B. Being overactive (hyperactivity)
- C. Acting without thinking (impulsivity)

These symptoms get in the way of functioning or development. Child who have ADHD have combinations of these symptoms:

Signs of inattention may includes :

- Make careless mistakes in schoolwork or during other activities
- Have problems sustaining attention in tasks or play
- Seem to not listen when spoken to directly
- Fail to not follow through on instructions, fail to finish schoolwork
- Start tasks but quickly lose focus and get easily side-tracked
- Have problems organizing tasks and activities, such as doing tasks in sequence, keeping materials and belongings in order.
- Avoid or dislike tasks that require sustained mental effort, such as schoolwork or homework, Lose things necessary for tasks or activities, such as school supplies, pencils, books, tools.
- Become easily distracted by unrelated thoughts or stimuli
- Forgetful in daily activities.

Signs of hyperactivity and impulsivity may include:

- Fidgeting and squirming while seated
- Getting up and moving around in situations when staying seated is expected, such as in the classroom.
- Running or dashing around or climbing in situations

where it is inappropriate.

- Being unable to play or engage in hobbies quietly.
- Being constantly in motion or “on the go,” or acting as if “driven by a motor”
- Talking nonstop
- Blurting out an answer before a question has been completed, finishing other people’s sentences, or speaking without waiting for a turn in conversation.
- Having trouble waiting his or her turn
- Interrupting or intruding on others, for example in conversations, games, or activities.

In *Ayurveda*, there is no direct correlation for ADHD. But according to its symptoms, to some extent it can be compared with Vataja Unmaad and Anavasthitachittatwa (Vatavyadhi)[3]. According to Acharya Charak, intake of viriddha, dushta, asuchiahara (intake of incompatible, polluted food), devata, guru, brahmanaapamana (insult to God and teacher), affliction of mind due to excessive fear and excitement, and other undesired activities leads to Unmaad [4]. Due to intake of vatavruddhikaraaharaviharaha, the aggravated Vata adversely affect the heart afflicted with mental agony (including worry, passion and anger) and instantaneously perverts the intellect and memory. As a result of this, the following sign and symptoms are manifested: Laughing, smiling, dancing, singing, speaking, moving limbs of the body and weeping in inappropriate place (inopportune moment) Along with this general Unmaad symptoms like intellectual confusion, fickleness of mind, unsteadiness of vision, impatience may also be seen [5]. While explaining the treatment Charakacharya has told that, in Vataja Unmaad first Sharpipana should be given. In Panchakarmasnehana, swedana, vamana, virechana and samsarjanakrama should be followed according to the patient [6].

The underlying aetiology of ADHD may be heterogeneous and diverse, and many possible risk factors in the development of ADHD have been identified. Conventional treatment usually consists of behavioural accommodations and medication, with stimulant medication most commonly being prescribed [7]. Parents concerned about the side effects and long-term use of conventional medications are increasingly seeking alternatives to pharmacologic treatment.

BASIC INFORMATION OF THE PATIENT

Age: 6 years

Sex: Male
 Religion: Hindu
 Socioeconomic status: Middle class.
 Father occupation- Civil Engineer
 Mother is house wife.

PradhanavedanaVishesha (Chief Complaints)

Not sitting in a place for more than 5 mints, not going to the school unattended, sudden hyperactivity like throwing objects, hitting himself, aggressive nature, poor school performance, beaten classmates and siblings, unable to concentrating in task, sometimes bed wetting since 3 year of age.

Vartamanavyadhivrutanta (History of Present Illnesses)

the child was apparently normal till 3yrs of age. Gradually parents noticed some behavioural disturbances in the kid. The parents were not worried for that as it was natural for a kid of that age. Then the kid joined school, in school the kid was not able to sit for a long time, and he used to go to school only when both of his parents go and sit with him. So, he is not regular to school and his performance at school also less than average. Later the parents noticed that, sometimes while playing with friends or at home also, suddenly the kid became hyperactive and started throwing objects and hitting himself. So, the parents stopped sending him out to play with friends. But according to the parents his behaviour towards his younger brother is also not good. For above reasons they consulted to a Dr.Jadhav (Paediatric neurologist) Arya Clinic kolhapur.in the year 2016, and diagnosed with ADHD (Attention Deficit Hyperactivity Disorder) and he was under medication. After medication the parents notice some changes in the behaviour of the kid. But they were not satisfied with the results so they consulted to our hospital KB Dept. for further management.

Birth history:

Patient was delivered by L.A.C.S.but not cried soon after birth, birth weight 2.7 kg. Baby was kept in NICU for 1 days under observation.

Purvavyadhivrtta (history of past illness)

At the age 2.5 yrs. he had febrile seizures for 1 time and admitted in Arya clinic Kolhapur under the treatment of Dr.Jadhav for 3 days.

Cikitsavrittanta (Treatment History)

Patient was taken allopathic medicine for this disease. Treatment received previously Syp. Zincovit3.5ml Bd, Tab Otolanz-PV ½ BD, Tab Qutipin 25mg ¼ tab at bed time, D Calsachet once in a week

KulajaVrutanta (Family History)

No family history and consanguinity found.

History of Immunization

Properly given as per age.

Growth & Developmental History :

Gross motor development : Neck holding, Sitting ,Standing and walking: appeared as per age Fine motor development : Not appeared as per age Language development: Not appeared as per age.

Toilet training: Not appeared as per age.

VaiyaktikaVrutanta (Personal History)

Aharaja-Appetite was poor. Diet was dominant in Katu rasa Viharaja-Nature of activity was hyper active Sleep was

Observation table:

Sign and symptoms	Before treatment	After treatment
Hyperactivity Not sitting in one place	Not sitting in one place for 5min	Sitting for 10-15min in a place
Throwing objects beating himself and other person also	Doing very often in a day	Episode reduced to 2-3/day

disturbed (1-2 h/day, 6-7 h/night). Bed wetting (had not achieved bladder control) Academicals :Academic Failure ,Asocial behavior :not good

Social History :-Residential area : Rural Hygienic status : Dental hygiene improper

Examination

General Examination: Vitals were normal. The general condition of the patient was good, moderate built and nourished, afebrile, hyperactive , inattention. Physical Development : Examinations had shown no deformity.

DashavidhaPariksha :

Prakrti :Vatapradhanpittaj ,Dosa: vata (vyanavata), pitta,Dushya: Rasa, ashtamanobhava, Desha: Sadharan, Kala : Aadankala, Bala:Madhyam ,Kostha: Madhyam, Agni : Vishamagni ,Samhanana :Madhyam ,AharaSakti ,AbhyavaharanaSakti : Madhyam ,JaranaSakti : Madhyam.VyayamaSakti :Uttam

Astasthan Pariksha :-

Nadi -94/mints,Sabda –Prakruta, Mutra -Prakruta , S p a r s a –Anushnasheeta Mala –Prakruta, Druk –Prakruta ,Jihva–Sam ,Akrti–Madhyam

SrotasPariksha -Rasavahasrotas,manovahasrotas[8]

Systemic Examination: In the systemic examination, findings of GIT, respiratory and cardiovascular system were within normal limit. CNS- Higher mental function- pt. was conscious and well oriented with time, place and person.

Diagnostic criteria

The two main guideline used for the diagnosis of ADHD are DSM-Vanda DSM-V criteria is followed because of its broader spectrum .In making the diagnosis, children should have six or more symptoms of the disorder .[9]

Treatment Protocol.

A) Dipan-pachan:

The treatments given for that ADHD child included cleansing of Aam , that had built up in the body and even the mind; building healthy levels of Ojas (Vital energy) is the key to maintain a healthy mind, nervous system and body i.e. establish balance of dosha and dhatus. For this purpose we used Aamapachakvati 125mg bd for 5 day.

B) Shaman oushadhi:

Treatment includedVata-Pitta pacifying herbs and MedhyaRasayanas (nootropic herbs – substances which improve cognitive function), such as 1) Brahmi, Mandukaparni, Yashtimadhu, Vacha, Jatamansi, Ashwagandha, Guduchi.Each drug taken 30mg tds with Madhu for 3 month.2)Kalyanakaghrita 2-tsf BD with milk to control inattention, hyperactivity, impulsivity, and distractibility. They generally build tissues and ojas, which nourish and pacify Vata and Pitta.

C) Panchakarma :

- 1) shirodharastarted with driving 1.5 lit.of light warme dmahanarayantaila over forehead for 30 mints. With light and slow skull massage was given earlier and also during the shirodhara for 7 days .
- 2) Abhyanga, Swedana followed by Matrabasti with Kalyanakaghrita30ml for 5 days with 1 month in gap period.

Inattention – Regarding tasks focus	Start tasks but quickly lose focus	Now focus in task increases
Obeing commands	Every time not obeying commands	Sometimes not obeying commands
School performance	Poor school performance.	Mild improvement in school performance.
• Impulsivity • Talking nonstop	• Talking nonstop	Now talking limitedly but sometimes Talking nonstop
• Having trouble waiting for his turn	• Every time having trouble waiting for his turn	• Sometimes having trouble waiting for his turn.
• Disturbed sleep	• Disturbed sleep	• Now having sound sleep

DISCUSSION:

The Aamapachakvati given for that ADHD child helps in cleansing of Aam , that had built up in the body and even the mind; building healthy levels of Ojas (Vital energy) is the key to maintain a healthy mind, nervous system and body i.e. establish balance of dosha and dhatus.

The drugs used here like Brahmi, Mandukaparni, Yashtimadhu, Vacha, Jatamansi, Ashwagandha, Guduchi acts as medhya drugs and, rasayana, which increases the cognitive power, boost memory and helps in concentration.

Kalyanakaghrita is indicated in Unmaadprakarana and also Uttamamatrasnehapana is advised in Unmaada by Charakacharya. So, Kalyanakaghrita is given 15-20ml for each time for thrice in a day. Even ghrita is heavy to digest, majority circulation may go to stomach which leads to decreased flow to hyperactive brain, resulting in calmness of mind And also, ghrita will have Omega-3 and 9- essential fatty acids which are useful for cortical expansion and maturation.

The benefits of Shirodhara on the mind, body and soul are numerous, being an excellent treatment to promote blood circulation, reduce stress, restore damaged nerves, improves memory and cognitive function Psycho-neuro-immunological effects of this therapy, such as a decrease in noradrenaline, exhibiting a sympatholytic effect, and resulting in the activation of peripheral foot skin circulation and increase in natural killer cells, have been demonstrated by Japanese researchers.[10]. These researchers also predicted that the effects of Shirodhara in reducing anxiety could be attributed to the Somato-autonomic reflex through thermo-sensors or pressure sensors in the skin or hair follicles via the trigeminal cranial nerve [11]. The drug contains of Mahanarayan tail have sheetavirya and pittahara properties. Due to sheetavirya, it gives a cooling effect to the head, constrict the local blood vessels, by which the increased blood flow to the brain during hyperactivity and impulsivity reduces. Which in turn reduces the hyperactivity and impulsivity, induce sound sleep.

Basti is a purification process by which all the three vitiated Doshare expelled from the anal route and especially Vata is pacified. As a result of excretion of vitiated Doshathe physiological equilibrium in three Doshais maintained and lasting results are produced with the therapy in the form of sound health. Bastidravaya may activates the Neuro-humeral transmission by stimulating the Gut brain, regulating changes in behaviour and emotions. And also, Rajoguna is more predominant in ADHD/Manasavikara. This guna usually controlled Vatadosha [12] . So ultimately when Vata controlled auto correction of Rajoguna occurs. Hence Basti has been planned. Kalyanakaghrita is described in AshtangaHrudaya, according to Vagbhatacharya it is Balya, Ayushya, mangala, cures Grahargogas, unmaada, apashmara, boost memory and intellect.

CONCLUSION:

A child with ADHD having one or more co-occurring disorders like learning disabilities depression, anxiety, hyperactivity , impulsivity, inattention. So, ADHD is behavioural disorder of childhood. In this case child had learning disabilities depression, anxiety, hyperactivity ,

impulsivity, inattention. He has a fluent speech but more talkativeness. Here only two sittings of panchakarma and one month of shamanaushadhi was advised. We can advised for few more sittings with internal medication, to see the long-lasting effect of the treatment. So, here we conclude that, ADHD cannot be cured completely but with proper medication and counselling, the number of episodes can be reduced, or the child may get a long relief period.

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