



CASE REPORT

Ayurvedic management of autism- a case report

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Abstract

A male child aged 5 years presenting with delayed speech (only a few words), reduced eye contact, stranger anxiety, laughing and jumping frequently noticed since 2½ years of age, taking non-eatables like candles, newspapers etc. to mouth was diagnosed as Vathapradhana Sannipatha Unmadam (Childhood Autism). CARS (Childhood Autism Rating Scale) value was 42. This case was treated at the Department of Kaumarabhritya, Government Ayurveda College, Tripunithura and there was much improvement in eye contact, jumping and laughing reduced, the patient started to speak a few new words, attention improved and CARS Value reduced to 36 after treatment. Autism spectrum disorder (ASD) is a neurodevelopmental disorder characterized by deficits in social communication and the presence of restricted interests and repetitive behaviours. It can be correlated to *Unmada* in Ayurveda. Impaired *agni* (digestive fire) is a cardinal feature in Autism which is due to abnormal microbiota Autism. Correction of *Agni* by *Deepana*, *Pachana* which corrects the dysbiosis of microbiota along with the adoption of treatment principles of *Unmada* can bring about much improvement in the signs and symptoms of Autism.

Introduction

Autism spectrum disorder (ASD) is a neurodevelopmental disorder characterized by deficits in social communication and the presence of restricted interests and repetitive behaviours. It can be correlated to *Unmada* in Ayurveda. Autism is diagnosed by DSM-5 criteria and the severity of the disease is measured using the scale CARS-2ST. According to Ayurveda, the disease occurs due to *manovahasrothodushti* (obstructions to the channels of the mind), which is produced as a result of *rasavahasrothodushti* (obstructions to the channels of rasadhatu), due to impaired *agni* (digestive fire). Correction of impaired *agni* along with adopting the treatment principles of *Unmadam* can reduce the disease severity. A male child, aged 5 years presenting with symptoms of Autism was treated at the Department of Kaumarabhritya, Government Ayurveda College, Tripunithura and there was much improvement after the treatment. The case is as follows.

PATIENT INFORMATION

Male child aged 5yrs from Thodupuzha, Kerala with delayed speech (only a

few words), reduced eye contact, stranger anxiety, laughing and jumping frequently noticed since 2½ years of age, taking non-eatables like candles, newspaper etc. to mouth, came to our OPD, Department of Kaumarabhritya, Government Ayurveda College, Tripunithura.

CASE HISTORY

According to the informant (mother), the patient is the first child of a non-consanguineous couple (conceived after one month of marriage). The child had a birth weight of 3.32kg and had no history of NICU admission. It was full-term vacuum-assisted delivery. The parents noted that speech was delayed, and used to call only Amma. At 2yrs he had a hand-foot-mouth disease and took admitted to Kolenchery medical college, after one week he developed staphylococcal scalded skin syndrome and took hospital admission.

By the age of 2½ years, parents noticed that the child had lack of attention, jumping and laughing without any reason, had less eye contact, was afraid of the sound of a pressure cooker mixer grinder, fear of other loud noises, stranger anxiety, fear of water etc., fear of bathing brushing teeth etc., repeated hand shaking movements etc. So, they took consultation at Kolenchery medical college and had normal reports. He took speech therapy for a short period. Then they took consultation at Kottayam medical college and there he was diagnosed with childhood autism. They took Ayurvedic treatment for a while and speech therapy but his speech didn't improve. In development assessment at 3yrs of age, he had attained only 5months of development. Then they approached the Government Ayurveda Hospital, Tripunithura and took 2 times IP treatments in 2021 and 2022, after that they noticed considerable improvement. He developed eye contact, stranger anxiety decreased, attention improved, his hyperactive nature of jumping and running reduced, and

repeated hand movements reduced. Later they discontinued treatment due to the Covid pandemic. Now he indicates his need for toileting. He stopped bed-wetting for 2 months. On November 2022 developmental assessment he had attained 3yrs age development.

The patient had a history of Hand foot mouth disease at the age of 2yrs and Staphylococcal scalded skin syndrome {SSSS} at 2years. Maternal age was 30 years and Paternal age was 32years. Hyperemesis was present in the first trimester only. She had Low Hb – took medication. There was a history of UTI in the 7th month of gestation, took allopathic medication and 2days of hospital admission. There was no gestational diabetes/ HTN/ thyroid dysfunction. When we interrogated with mother regarding her lifestyle during the antenatal period, she revealed that she woke up at 5:30am, went to bed at 10pm, had a low appetite, and liked spicy food, curd, pappad, and pickles. She worked for 5 months during the antenatal period. There was no history of family disputes or depression. During the ante-natal period, the father had more anger and preferred spicy foods. All vaccines were taken up to the age of 5yrs.

Natal history revealed Full term, Vacuum-assisted vaginal delivery, Cried soon after birth. His birth weight was 3.2kg. There was no NICU admission. During the post-natal period also, there was no NICU admission. But the child had poor sucking reflexes and difficulty in breastfeeding during this time.

Dietetic History revealed exclusive breastfeeding for up to 6 months; Breast milk, solid food, formula feed for up to 2 years, Solid food only from 2 years onwards. The child prefers sweet food, dislikes rice foods, prefers wheat products, is more interested in pappads, fried items, and fish, had a low intake of water. Intake of non-eatables like toothpaste, toothpowder, and soap was noted.

DEVELOPMENTAL HISTORY

Month	Gross motor	Fine motor	Social	Language
3 rd month	head holding	Passive grasp	Show interest in dangling toys	Make sound
5 th month	Rolls over			
6 th month	Sit with support	Reach for objects	Smiles over mirror	Makes noise
8 th month	Crawling with abdomen	Truns to sound		
9 – 10 th month	Stand with support attained		Responds to tv noise	Calls amma
12 th month	Stand without support attained			Speaks only the word amma
15 th month	Walk without support not attained	Building tower with blocks not attained		No improvement in speech

Month	Gross motor	Fine motor	Social	language
18 th month	Climbing steps (self) – not attained	Make tower – not attained	Dry by day not attained	No improvement

At the age of 5yrs, the patients' milestones are as follows. Speaking sentences– not attained, Toileting self – not attained, (Indicated need for toileting by 2022), Stopped bed wetting since last 3 months, Speech – amma and few words, Writing – not attained, Building tower of maximum 7 to 8 cubes – attained, Drawing shapes – not attained

Prakruti : *Vaatapitta*
Satwam : *Heena satwam*
Satmyam : *Madhura rasa pradhana*
Aharam : *Abhyavaharana – avaram*
Jaranam - avaram

CLINICAL FINDINGS

The patient's bowel is regular, appetite is moderate, micturition is normal, sleep is sound, and no known allergy is there.

Among Higher mental functions, the patient had right hand Handedness, Level of consciousness – conscious, Orientation: Time: absent, Place: can identify a home, Person: identify family members, Appearance and behaviour – not completely cooperative, Emotional state – sometimes happy, sometimes sorrow, Memory – impaired, remembers family members, (other things couldn't convey), Intelligence –Calculation, judgment, reasoning -couldn't convey, On instructing won't touch hot things, sometimes follow other instructions also, Speech – few words, no sentences, calls amma occasionally, Reading and writing ability -not attained

Ashtasthana Pareeksha is as follows. *Nadi: drutham, Mootram: anavilam, Malam: Badham, Katinam, Jihwa: Anupaliptam, Sabda: Aspashtam, Sparsa: ushnam, Drik: Anavilam, Akrti:madhyamam.*

Dasavidha Pareeksha is as follows

Dooshyam : *Dosham - Vata pradhana tridoshadushti*
Dhatu- rasam, rakta, majja
Srotas - pranavaha, pureeshavaha, rasavaha
raktavaha, majjavaha, manovaha
Desham : *Deham - sarvasareeram*
Bhoomi - Anoopo sadharanam
Balam : *Rogam - pravaram*
Rogi – avaram
Kaalam : *Kshaanadi – sisira rtu*
Vyaadhi avastha – puraanam
Analam : *avaram*
Vaya : *Baalam*

We can derive the samprapthi as follows. Risk factors (*ahaara vihaara* of mother+*rajo bhava* of father) + *beeja dusti* caused *vathapradhana sannipatha doshadushti* in the *garbha* and *manovahasrothodushti*, leading to *Unmada*. The provisional diagnosis was concluded as *Vatika Unmadam* and the final diagnosis was *Vatapradhana Sannipata Unmada*. In modern terms, the case was diagnosed as Childhood autism with CARS (Childhood Autism Rating Scale) value obtained as 42.

IMPROVEMENTS NOTED

Eye contact improved
 Jumping and laughing reduced
 Few new words
 Attention improved
 CARS Value reduced to 36

Discussion

Autism spectrum disorder (ASD) is a neurodevelopmental disorder characterized by deficits in social communication and the presence of restricted interests and repetitive behaviours. It can be correlated to *Unmada* in Ayurveda. Impaired *agni* (digestive fire) is a cardinal feature in Autism which is due to abnormal microbiota Autism. Correction of *Agni* by *Deepana, Pachana* which corrects the dysbiosis of microbiota along with the adoption of treatment principles of *Unmada* can bring about much improvement in the signs and symptoms of Autism. *Deepana* and *Pachana* which corrects the *agni* leads to *manovahasrothodushti* and thereby corrects the functions of the mind and brain. Improvements in the *satwa* of the individual by the treatment methods of *unmada* bring about change in the mental temperament (reduction of *rajas* and *tamas*) of the individual and thereby reduces the chance of disease remission.

TREATMENT (CHIKITSA)

Date	TREATMENT PRINCIPLE	MEDICINES	TIMELINE	REMARKS
18/01/2023- 24/01/2023	<i>Rookshanam and deepanam</i>	<i>Utsadanam with kolakulathady choornam and dhanyamlam Gandharvahasthady kashayam 45ml before food twice daily Ashtachoomnam-5gms twice daily before food</i>	7 days	Appetite improved
25/01/2023- 01/02/2023	<i>Snehapanam</i>	<i>kalyanaka ghritham</i> -started with 10ml and attained <i>samyaksnigdhatta</i> on the 8 th day with 50ml	8 days	<i>Samyaksnigdhatta</i> on 8 th day
02/02/2023- 04/02/2023	<i>Abyangam and ushnodaka snanam</i>	<i>vathasini thailam</i>	3 days	Attention improved
05/02/2023	<i>Shodana(mriduvirechanam)</i>	<i>sukumara erandam</i> -10ml	1 day	Hyperactivity reduced
09/02/2023- 16/02/2023	<i>Vasthy</i>	<i>Dwipanchamoolady yogavasthy vatasani taila</i>	8 days	Marked reduction in stereotypic actions
09/02/2023- 22/02/2023	<i>Siropichu</i>		14 days -started after <i>sodhana</i>	Eye contact improved
09/02/2023- 22/02/2023	<i>Takradhara</i>	<i>Mustha amalaky takra</i>	14 days -started after <i>sodhana</i>	started to speak a few new words
23/02/2023- 01/03/2023	<i>Prathimarsa Nasyam</i>	<i>ksheerabala tailam(21 Avarthi)- 2 drops per each nostril</i>	7 days	
09/02/2023- 01/03/2023	<i>Samanam</i>	<i>Drakshadi kashayam-45 ml thrice daily before food Manasamitravatakam -1 tablet at night Kalyanaka ghritham-10 gms twice daily</i>	Started after <i>sodhana</i>	

Conclusion

Autism spectrum disorder (ASD) is a neurodevelopmental disorder characterized by deficits in social communication and the presence of restricted interests and repetitive behaviours. In modern medicine, presently there are no effective medications for reducing the signs and symptoms of Autism. Therapies like Behavioural therapy, occupational therapy, and speech therapy can cause slight improvement in the disease but is not sufficient to bring about optimum results in autistic symptoms. Ayurvedic management along with these therapies can effectively manage Autism, by adopting the treatment principles of *Unmadam* and by correction of *agni*.

DECLARATION AND PATIENT CONSENT

Authors certify that they have obtained a patient consent form, where the caregiver has given consent for reporting the case in the journal. The caregiver understands that his name and initials will not be published, and efforts will be made to cover the identity, but anonymity cannot be guaranteed.

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CONFLICTS OF INTEREST

There are no conflicts of interest