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AUTISM MANAGEMENT THROUGH AYURVEDA: A 6-YEAR-OLD'S JOURNEY

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ABSTRACT

Background: Childhood autism is a neurodevelopmental disorder characterized by impaired social communication, social interaction, and repetitive behaviours. Ayurveda, a traditional system of medicine, offers a unique perspective on autism, drawing parallels with Unmada, a condition affecting the mind and cognitive functions. It is characterized by an imbalance in the bodily humors (vata, pitta, and kapha) and mental faculties (raja and tamas), leading to a disruption in the cognitive functions and manovaha strotas (mind and cognitive channels), resulting in severe impacts on mental and physical well-being. **Materials and Methods:** A 6-year-old male child diagnosed with autism, exhibiting reduced eye contact, delayed speech, stereotypic movements, and hyperactivity, was treated with Ayurvedic interventions, including Panchakarma modalities and stimulation, in addition to ongoing occupational and speech therapy. **Results:** After 10 days of Ayurvedic treatment, significant improvements were observed in behaviour and hyperactivity, suggesting the potential of Ayurvedic interventions in managing autism. **Discussion:** This case report highlights the possibility of studying and treating autism through the lens of Ayurveda, particularly in relation to Unmada. The imbalance of doshas (vata, pitta, kapha, raja, and tamas) affecting cognitive functions and manovaha strotas (mind and cognitive channels) may be a crucial aspect of autism management. **Conclusion:** This case report demonstrates the effectiveness of Ayurvedic treatment modalities in reducing the symptoms of autism, offering a promising complementary approach to conventional therapies.

KEYWORDS: Ayurveda, childhood Autism, Neurodevelopmental disorder, Panchakarma, unmada.

INTRODUCTION

Childhood Autism, a neurodevelopmental disorder impacting brain development, affects social interaction and communication,[1] leading to difficulties in perceiving and socializing with others. Globally, its prevalence is estimated at 7.6 per 1000 individuals, equivalent to 1 in 132 people, with approximately 52 million cases reported in 2010. In India, the prevalence among rural children aged 1-18 is 0.11%, while among urban children aged 1-15, it is 0.09%.[2] According to the CDC's 2020 ADDM autism prevalence report, the prevalence of autism has significantly increased to 1 in 54, doubling the 2004 rate of 1 in 125.[3]

Presently, autism treatment options primarily consist of speech and behavioral therapies, alongside medications such as Risperidone, aripiprazole, and Selective Serotonin Re-uptake Inhibitors (SSRIs), a class of antidepressants. These medications may help reduce the frequency and intensity of repetitive behaviors, alleviate anxiety and irritability, and improve eye contact. However, they have limited impact on symptom reduction and are often accompanied by side effects like drowsiness, dizziness, lightheadedness, drooling, nausea, weight gain, and fatigue. Notably, there is no definitive treatment approach in contemporary medicine that can effectively manage autism symptoms without significant side effects.

Autism shares similar characteristics with Unmada. In Ayurvedic terms, Autism is a condition affecting the manovahastrotas (mind and cognitive channels), where an imbalance of bodily humors (vata, pitta, and kapha) and mental faculties (raja and tamas) significantly impairs cognitive functions.

MAIN SYMPTOMS/ IMPORTANT FINDINGS

The child presented with a range of concerning behaviors, including hyperactivity, restlessness, and aggression, which were evident both at home and in school settings. Additionally, there were delays in speech development and reduced eye contact, prompting the parents to seek professional help.

MAIN DIAGNOSIS, THERAPEUTIC INTERVENTION

The child received a diagnosis of autism spectrum disorder (ASD) based on the criteria outlined in the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5). This diagnosis was made through a comprehensive assessment process, which included the Modified Checklist for Autism in Toddlers (M-CHAT) with a score of 12/20 and the Indian Scale for Assessment of Autism (ISAA) with a score of 97.

The comprehensive assessment revealed that the child has moderate autism spectrum disorder (ASD), as indicated by the assessment scales. This diagnosis highlights the need for targeted interventions and support to address the child's specific needs and promote their development and well-being.

A 6.4-year-old boy was referred for evaluation due to a constellation of concerning behaviors, including hyperactivity, restlessness, and aggression, which were manifesting in both home and school environments. Furthermore, he exhibited significant delays in speech development and struggled with maintaining eye contact, necessitating a comprehensive assessment and tailored intervention strategy to address these intricate needs and promote optimal developmental outcomes.

The child's condition is attributed to a complex interplay of factors, including: a family history of mental retardation and autism, prenatal maternal stress, pregnancy-induced hypertension, and premature delivery. These multiple contributing factors present a challenging scenario for treatment, requiring a comprehensive and individualized approach to address the child's unique needs.

PATIENT INFORMATION

De-identified patient specific information

A 6-year-4-month-old male, has a father with a Bachelor of Engineering degree and a mother with a Bachelor of Science and Bachelor of Education degree, and comes from a middle-class socio-economic background.

Primary concerns and symptoms of patient

A 6.4-year-old child was brought to the Outpatient Department (OPD) of the Department of Kaumarabhritya, Sri Dharmasthala Manjunatheshwara Institute of Ayurveda and Hospital, with primary concerns of restlessness, hyperactivity, reduced eye contact, and delayed speech. A detailed history revealed that the child was born prematurely at 34 weeks of gestation due to umbilical insufficiency, weighing 1.5 kg, and was admitted to the Neonatal Intensive Care Unit (NICU) for 16 days. Despite achieving all gross and fine motor milestones appropriately, the child's mother noticed restlessness, running in circles, and delayed speech at 3 years old. The child was diagnosed with moderate autism at AISH Institute in Mysore and received treatment, including medication and occupational and speech therapy, at various institutions. Although there was some improvement in eye contact and speech, the child's symptoms of hyperactivity, restlessness, and aggressive behavior towards others worsened, prompting referral to SDM Institute of Ayurveda for further management.

MEDICAL, FAMILY, PSYCHO-SOCIAL HISTORY

Medical History: The child was admitted to the Neonatal Intensive Care Unit (NICU) for 16 days due to low birth weight.

Family History: The child's maternal cousin sister has a known case of mental retardation (K/C/O).

- The child's paternal brother has a known case of Autism (K/C/O).

Psycho-Social History: The child's family has a history of neurodevelopmental disorders, which may be a contributing factor to the child's current condition."

Past interventions

The child has received various interventions in the past, including:

- Pharmacological intervention: The child was prescribed Tablet Cysdone for a duration of 1 year, which was later discontinued.
- Therapeutic interventions: The child is currently undergoing:
- Occupational Therapy (OT) to enhance daily living skills and adaptive functioning.
- Speech Therapy (ST) to improve communication skills and address speech delays.

CLINICAL FINDINGS

The child presents with the following clinical features:

- Impaired social interaction: Characterized by reduced eye contact, indicating difficulty with social engagement and communication.
- Delayed speech development: The child's speech is delayed, with limited vocabulary and difficulty articulating words.
- Hyperactivity: The child exhibits excessive physical activity, restlessness, and fidgeting, making it challenging to focus and engage in activities.
- Aggressive behavior: The child displays aggressive behavior in both home and school settings

DIAGNOSTIC ASSESSMENT: DSM V criteria for Autism.

THERAPEUTIC INTERVENTION

The child was treated with specific ayurvedic treatment for a period of 10 days

Orally- Syrup manasa 5ml-0-5 ml A/F

Sukumara rasa 1 OD B/F

Suvacha churna ½ tsp with ghee and honey for asya prathisarana

Table I: Treatment Schedule of 10 Days.

Day 1	Day 2	Day 3	Day4	Day 5	Day 6	Day 7	Day 8	Day9	Day 10
Udw	Udw	Udw	Sa	Sa	Sa	Udw	Udw	Udw	Sa
Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns	Ns
Shirodhara with brahmi taila									
Bala panchagandhadi shirolepa									
Matra basti with bilwadi gritha- 25 ml									
Speech stimulation									

Udw- Udwarthana, Ns- Nadi Sweda, Sa-Sarvanga Abhyanga

FOLLOW-UPS AND OUTCOMES

After the 10 days Ayurvedic treatment, the parents reported significant improvements in the child's behavior and development, including:

- Enhanced sitting tolerance: The child showed improved ability to focus and engage in activities for longer periods.
- Improved speech clarity: The child's speech became more articulate and clearer, facilitating better communication.
- Reduced hyperactivity and restlessness: The child exhibited decreased physical activity and agitation, leading to a calmer and more composed demeanor.

These positive outcomes indicate a promising response to the Ayurvedic intervention, warranting continued monitoring and treatment to consolidate and further enhance the gains made.

DISCUSSION

Unmada, a condition primarily affecting the mind (manas), occurs when one or more of the three bodily elements (doshas) become imbalanced. The pathogenic dosha initially disrupts the functions of buddhi (intellect) and smrti (memory), which are situated in the heart. The dosha then travels to the mind through the srotas, a network of channels that can be conceptualized as a functional circulatory or nervous system, or a hybrid combination of both.

In this context, the srotas play a crucial role in transmitting the imbalanced dosha to the mind, leading to the manifestation of Unmada. Understanding this complex process is essential for developing effective treatment strategies to restore balance to the mind and body.

The management of Unmada, a mental health condition, involves a comprehensive approach in Ayurveda. The initial step is to administer sneha (oleation) and sweda (sudation) therapies to prepare the patient for further treatment. This is followed by evacuation procedures using drastic emetics, purgatives, and shirovirechana (nasal cleansing).

The treatment plan for this child was comprehensive and targeted all aspects of autism. Shirodhara with Brahmi taila was administered, which not only serves as a brain tonic but also helps to calm and soothe the child. Brahmi taila is particularly effective in promoting relaxation and reducing anxiety, making it an ideal choice for individuals with autism.

Udwarthana therapy offers a multifaceted approach to addressing autism. Not only does it facilitate whole-body nourishment (sarvanga amaharana) and kindle the digestive fire (agni), but it also serves as a stimulating technique that reduces sensory issues commonly experienced by autistic children. By stimulating the body and promoting overall well-being, Udwarthana helps to alleviate sensory complaints and improve the child's quality of life.

Speech stimulation therapy plays a crucial role in enhancing speech production by activating the muscles involved in the process. Additionally, it helps to alleviate associated issues such as oral sensory sensitivities, feeding difficulties, and excessive drooling. Furthermore, Asya Prathisarana with Suvacha Churna not only supports speech stimulation but also serves as a Medhya dravya, meaning it enhances cognitive function and improves mental clarity.

Basti therapy is widely regarded as a premier treatment approach, particularly for managing Vata-related disorders. The Basti Dravyas used in this therapy possess a range of beneficial properties, including *Vatahara*, *Shulahara*, *Shothahara*, *Srotoshodhaka*, *Yogavahi*, *Agnideepaka*, and *Rasayana*.

Children with Autism are particularly susceptible to gut disturbances, which can exacerbate their hyperactivity. To address this, *Bilwadi Gritha* was chosen as the treatment of choice, owing to its exceptional ability to balance the digestive fire (agni) and promote optimal gut health.

Orally, Syrup Manasa was administered, which is a comprehensive brain tonic containing a blend of Medhya dravyas. The ingredients in Syrup Manasa, such as Brahmi, Shankapushpi, vacha, shatavari and Ashwagandha, are believed to have a positive impact on brain function and neurodevelopment, which may be beneficial for individuals with autism. These herbal ingredients work synergistically to: Reduce sleeplessness and anxiety, Enhance memory and retention and Support cognitive function.

CONCLUSION

Based on the observation from this case report, it is evidence that the burden of autism on parents and society is substantial. However, Ayurvedic interventions have shown promising results in addressing various domains of autism, offering a significant potential improvement in child. Based on the observations from this case report, it is evident that the burden of Autism on parents and society is substantial. However, Ayurvedic interventions have shown promising results in addressing various domains of autism in child. This suggests that Ayurveda can be considered as a complementary treatment which can be used in conjunction with existing therapy for autism.

Sources of Support: Nil.

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Conducted by Santhigiri Ayurveda Medical College on the Occasion of World Autism Awareness day.

Conflict of Interest: None.

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