

Ayurvedic Approach to Manage Autism Spectrum Disorder

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Abstract: Autism spectrum disorder is a neuro - development ailment seen in the preschool age. It is a lifelong condition and requires long term and multiple treatment interventions. The primary goal of treatment for ASD is to maximize the child's functional independence and quality of life by minimizing core ASD features, facilitating development and learning, promoting socialization, reducing maladaptive behaviours, and educating and supporting families. Ayurvedic treatment strategies for children with ASD include Yuktivyapashraya Chikitsa (medication therapy), Panchakarma therapy, meditation (OM chanting), and Yoga therapy. Ayurvedic remedies are emerging as a promising therapeutic approach for such disorders. This disorder may be prevented by Medhya Dravyas and Medhya Rasayanas. Ayurvedic interventions can enhance attention and social interaction, helping children engage more effectively in other therapies.

Keywords: Autism Spectrum Disorder (ASD), Medhya Rasayanas, Panchakarma Therapy, Yuktivyapashraya Chikitsa, Daivavyapashraya Chikitsa, Sattvavajaya Chikitsa

1. Introduction

ASDs, the third most common developmental disability, are identified by lack of interpersonal and communication skills, poor eye contact, delayed speech, and abnormal body movements. ASDs are neuro - behavioral and neuro - developmental disorders that Ayurveda correlates with Unmad, characterized by mental, memory, desire, behavior, and conduct disturbances. Managing ASDs and Unmad requires long - term, multi - faceted interventions, including behavioral and educational strategies. This review aims to interpret autism through an Ayurvedic lens and explore combined interventions for prevention and management. Ayurveda outlines three treatment modalities applicable to both physical and mental illnesses: Daivavyapashraya (spiritual therapy), Yuktivyapashraya (biological therapy), and Sattvavajaya (psychotherapy). [1]

Daivavyapashraya Chikitsa

Autism spectrum disorder, which involve complex neurodevelopmental challenges and manifest in behavioral abnormalities, spiritual therapies can play a significant role. Historically, practices like worship, mantra recitation, sacrificial rituals, truthfulness, good conduct, penance, knowledge, charity and adherence to religious principles have been prescribed for treating mental disorder like Unmada.

Sattvavajaya Chikitsa

Sattvavajaya Chikitsa, one of the three main treatments in Ayurveda, aims to restore and maintain the balance of Dhee (intellect), Dhriti (patience), and Smriti (memory), leading to overall well - being. [2] The term "Sattvavajaya" means controlling the mind to avoid harmful behaviors. Charaka, an ancient Ayurvedic scholar, introduced this concept, emphasizing the use of Gyana (true knowledge), Vigyana (scriptural knowledge), Dhairya (stability), Smriti (memory), and Samadhi (concentration) to manage mental disturbances. [3] Vagbhatta also supported these principles, advocating for intellectual stability and self - awareness. [4] The treatment involves enhancing Sattva (purity) to control Rajas (passion)

and Tamas (ignorance). Achieving Dhairya helps restrain the mind from unhealthy thoughts. True knowledge (Gyana) dispels ignorance, while scriptural knowledge (Vigyana) provides moral and spiritual guidance. Smriti, the ability to recall past experiences, is crucial in normalizing mental functions and is a key technique in Sattvavajaya Chikitsa, essentially serving as psychotherapy.

Yuktivyapashraya Chikitsa

Yukti Vyapashraya, rooted in rational thinking, involves the deliberate use of drugs and treatments. It's the most scientific approach, addressing root causes and mitigating pathogenesis. Charaka defines it as the careful use of diet and medicine based on a well - devised plan. This method focuses on correcting bodily imbalances with drugs and dietary prescriptions to cure or prevent diseases.

Ayurvedic treatment using Yukti Vyapashraya includes four key components:

- 1) **Nidana Parivarjana (Avoidance of causative factors):** Identifying and eliminating disease triggers to reduce illness risk.
- 2) **Samsodhana or Panchakarma (Bio - cleansing therapy):** Detoxifying the body through bio - cleansing techniques like Panchakarma, a set of five deep - cleansing procedures.
- 3) **Samsamana (Dosha pacifying therapy):** Pacifying vitiated doshas with specific treatments, herbs, and therapies to restore balance.
- 4) **Pathya Ahara Vihara (Favorable diet and regimens):** Emphasizing a balanced diet and lifestyle practices tailored to the individual's constitution and health.

By integrating rational thinking with Yukti Vyapashraya Chikitsa, Ayurveda provides a comprehensive framework for diagnosing, treating, and preventing diseases while promoting overall wellness.

Classical Management of Autism Spectrum Disorders in line with treatment of Unmada:

The treatment of Autism Spectrum Disorder necessitates a comprehensive approach that addresses the physical, mental, and spiritual facets of an individual. Ayurveda, with its unique treatment methodologies, plays a crucial role in managing behavioral disorders associated with ASD. The primary treatment strategy for Doshika Unmada (psychiatric disorders related to dosha imbalance) is outlined as follows:

- **Snehapana (internal oleation)** – for Vataja Unmada (imbalance of Vata dosha)
- **Sneha yukt Mridu samshodhana** (gentle body purification through vamana or virechana) – for Aavrta Vataja Unmada (Vata imbalance with accumulation)
- **Virechana** – for Pittaja Unmada (imbalance of Pitta dosha)
- **Vamana** – for Kaphaja Unmada (imbalance of Kapha dosha)

Following the purification therapies (samshodhana), a gradual reintroduction phase (samsarjana krama) is recommended. Subsequently, the following treatments are employed:

- **Niruhabasti** (decoction enema) and Snehavasti (oil enema)
- **Shirovirechana** (nasal purgation)

- **Teekshna Nasya** (nasal instillation) and Anjana (collyrium)
- **Shirodhara** (ancient therapy of pouring oil on the forehead from a specific height and for a specific period)
- **Shiropichu** (Placing of a piece of cloth soaked in medicated liquid on head)
- **Shirobasti** (a leather cap is constructed over the head of the person (in sitting position) using a leather cap. Junction with the head is sealed with wet flour of black gram and is filled with medicated oil.)

After the detoxification process through samshodhana therapies, the focus shifts to samshamana (dosha pacification) chikitsa for long - term management and balance restoration.

This approach in Ayurveda underscores the importance of addressing the root cause of disorders like Unmada by balancing the doshas and restoring harmony to the body, mind, and spirit.

Samshamana Chikitsa

Charaka and other scholars advocated the use of different varieties of medicated ghee in the *Shamana Chikitsa* of *Unmada*. The list of medicated ghee preparations indicated for *Unmada* are listed below:

Ghrita	Rasa panchaka	Karma	Doshagnatha
Kalyanaka Ghrita	Rasa –Katu, tikta Guna - Laghu, ruksha, Virya - Ushna	Deepana Anulomana Balya Brumhana Vrushya	Tridosahara, Kaphaja Unmada
Maha Kalyanaka Ghrita	Rasa – Tikta Guna – Laghu, Ruksha Virya – Ushna	Brumhana Balya Vrushya Medhya Anulomana	Tridosahara (Vata–Pitta samana)
Hingawadi Ghrita	Rasa – Katu Guna – Tikshna Virya – Ushna	Deepana Pachana Medhya Indriya prasada	Vata – Kaphahara Vaatanulomana
Mahapaishachika Ghrita	Rasa – Tikta Guna–Tikshna, Laghu, Sukshma Virya – Sheeta	Balya Pushtikara Medhya Grahaghna	Tridosha samana, Vatanulomana
Lasunadi Ghrita	Rasa – Katu Guna–Tikshna, Snigdha Virya – Ushna	Deepana Medhya Hridya Balya	Vata–Kapha samana
Tiktaka Ghrita	Rasa – Tikta Guna–Ruksha, Snigdha Virya – Sheeta	Anulomana Medhya Rakta prasadana	Pitta - Kapha samana
Mahatiktaka Ghrita	Rasa–Tikta Madhura Guna – Slightly guru, Ruksha, Snigdha Virya – Sheeta	Anulomana Medhya Rasyana Rakta prasadana	Pitta–Kapha samana

Role of Deepana - Pachana Chikitsa in ASD

Autism spectrum disorder (ASD) includes neurodevelopmental conditions affecting communication and social behavior, often accompanied by systemic inflammation, immune issues in the gastrointestinal (GI) tract, and changes in gut microbiota. Research using animal models shows these factors can contribute to ASD behaviors, highlighting connections between gut health, the immune system, and the brain.

Studies suggest immune disturbances and GI issues, such as altered gut microbiomes and "leaky gut," are common in ASD. Individuals with ASD often have a less diverse gut

microbiome and increased gut permeability, allowing bacterial metabolites to enter the bloodstream and potentially affect neurological functions. [5]

Ayurvedic texts describe a similar concept, referring to toxic metabolites as Ama, which can impair brain function due to hypo - functioning of Agni (digestive fire). Ayurvedic treatment focuses on correcting Agni imbalance with therapies like Deepana and Pachana to reduce Ama. Specific herbs and formulations in Ayurveda help address digestive imbalances associated with ASD. here are several polyherbal formulations that can be utilized to address gut imbalances in individuals with Autism Spectrum Disorder:

Astanga Ghrita, Mahapaishachik Ghrita, Saraswatha Ghrita, Vachadi Ghrita, Dashmooladyam Ghrita, Nagaradi Churna, Pippalyadi Churna, Bhunimbadi Kshara, Kalyanakam Kashayam, Kushmanda Ghrita, Unmada parpati Rasa, Shiva Ghrita etc.

Herbal Nootropic Drugs for ASD: *Mandukaparni (Centella asiatica Linn.), Yastimadhu (Glycyrrhiza glabra Linn.), Guduchi (Tinospora cordifolia (Wild) Miers), Shankhapushpi (Convolvulus pleuricaulis Chois), Jyotishmati (Celastrus panniculata), Kushmanda (Benincasa hispida), Vacha (Acorus calamus), Jatamamsi (Nardostachys jatamamsi)*

Panchakarma Procedures in the Management of ASD: Panchakarma procedures play a significant role in managing Autism Spectrum Disorder (ASD) by detoxifying the body and restoring balance. Here are the key Panchakarma therapies used:

- 1) **Nasya (errhine therapy) or Pratrimarsha Nasya** by *Anu Taila, Panchabhautika Taila, Tila Taila, Jyotishmati Taila, Brahmi Ghrita, Kalyanaka Ghrita, Panchagavya Ghrita*
- 2) **Shiropichu (Overhead application of oil)** by Bala Ashwagandhadi taila, Mahapaishachika taila, Triphaladi taila, Ksheer Bala Taila
- 3) **Shirodhara** induces a relaxed state of awareness that results in a dynamic psycho - somatic balance.
- 4) **Basti** referring to an enema therapy used to cleanse and balance the body's doshas.

The Role of Various Therapies in Autism

- 1) **Music Therapy:** Music therapy uses musical elements like rhythm, melody, and harmony to improve communication, social skills, and emotional regulation in individuals with autism. It can help reduce anxiety, improve attention span, and foster social interaction through shared musical experiences.
- 2) **Vision Therapy:** Vision therapy involves exercises and activities designed to improve visual skills and processing. For individuals with autism, it can address issues like eye tracking, focusing, and coordination, which can enhance reading skills, spatial awareness, and overall learning.
- 3) **Speech and Language Therapy:** This therapy focuses on improving communication skills, both verbal and non-verbal. It helps individuals with autism develop their ability to express themselves, understand others, and engage in social interactions. Techniques include articulation practice, language exercises, and the use of augmentative and alternative communication (AAC) devices.
- 4) **Auditory Integration Training (AIT):** AIT aims to improve the way individuals with autism process auditory information. It involves listening to modulated music through headphones, which is believed to help desensitize them to certain sounds and improve listening and communication skills. AIT can reduce hypersensitivity to sound and enhance auditory discrimination.
- 5) **Massage Therapy:** Massage therapy provides tactile stimulation through structured touch techniques. For individuals with autism, it can help reduce stress, anxiety,

and sensory overload. Massage therapy can also promote relaxation, improve sleep, and enhance body awareness and social bonding.

- 6) **Yoga:** Yoga combines physical postures, breathing exercises, and mindfulness practices. For individuals with autism, yoga can improve motor skills, reduce anxiety, enhance focus, and promote emotional regulation. It also provides a structured and calming routine that can help with sensory integration and overall well-being.

2. Conclusion

Multi-modal treatment enables a synergistic approach for positive outcomes in Autism Spectrum Disorder (ASD). Due to the complex nature of the disorder, an extended duration of therapy is necessary to correct the entire system that becomes impaired. Each therapy course, whether administered separately or together based on symptoms and tolerance, enhances steady results in sensory and motor integration, immunomodulation, and verbal communication abilities. *Satvavajay Chikitsa* is a broad term that may encompass all other multi-modal treatments currently developed. Therefore, the three main Chikitsa modalities of Ayurveda—*Yuktivyapashraya, Daivavyapashraya, and Satvavajaya*—serve as foundational steps in managing ASDs, a life-long condition. These modalities offer hope and underscore the need for further research in this field. *Agneemandya* (digestive impairment) and *Vatadushti* (vitiation of Vata dosha) are crucial causes of ASD and should be addressed. By implementing need-based modalities with a multi-dimensional and holistic approach and combining Ayurvedic interventions with conventional treatment like behavioral therapy, speech therapy and occupational therapy can provide a holistic approach to managing autism and significantly improving the quality of life.

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