

# Ayurvedic Intervention for Autism Spectrum Disorder - A Case Study

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## ABSTRACT

Autism spectrum disorder (ASD) is a developmental disability that can cause significant social, communication and behavioral challenges. It is a lifelong neurodevelopmental condition with its onset before the age of three years. It is characterized by abnormalities in communication, impaired social function, repetitive behaviors and restricted interests. Western medicine and research have seemingly stalled in respect to the management of autism however early intervention and behavioral therapies have shown improvement to some extent.

The present study describes the case of childhood autism visited at Government Ayurvedic Medical College and Hospital, Akhnoor, Jammu. Child was diagnosed clinically and has been treated with Ayurvedic interventions, Panchakarma therapies and diet modification. Child has got relief symptomatically within one week of therapy started. Case study briefly explained Ayurvedic concepts regarding childhood autism and Ayurvedic treatment protocols in autistic disorder.

**KEYWORDS:** Autism Spectrum Disorder, hyperactivity, Ayurveda, Management, Prevention, Pinda Sweda, Abhyanga, Pichu, Nasya, Uttar Basti.

## INTRODUCTION

Autism spectrum disorder (ASD) is a group of heterogeneous childhood onset neurodevelopmental conditions characterized by social communication

deficits, restricted interests and repetitive behaviors.<sup>[1]</sup> It is characterized by a triad of qualitative impairment in verbal and non-verbal communication, imaginative play and reciprocal social interaction. Other features seen in autistic children are obsessive behavior, reduced muscle tone, compromised digestive system etc.<sup>[2]</sup> It is the world's third most common developmental disorder, so to spread awareness every year 2nd April is marked as World's Autism Day.<sup>[3]</sup> Autism spectrum disorder (ASD) is the term adopted by the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM) released in May, 2013 by the American Psychiatric Association (APA). The exact cause of ASD is still under research. However, results from twin and family studies provide evidence for a strong genetic contribution, with multiple loci potentially involved.<sup>[4]</sup> Investigations of non-heritable factors suggest that environmental influences may also be etiologically important, and neuro-pathologic and biomarker studies provide compelling evidence for a prenatal origin.<sup>[5,6]</sup> The risk of ASD increases with increased maternal and paternal age.<sup>[7]</sup> In India its prevalence rate is 1 in 250 (Figure may vary) and currently 10 million people are affected.<sup>[8]</sup> Though there are numerous references of psychological disorders in Ayurveda classics, there is no description of exact clinical condition mimicking ASD. Hence,

ASD can be classified as an *Anukta Vyadhi* as per Ayurveda principles and upon understanding its pathophysiology, management is made based upon involvement of *Doshas, Dushya, Dhatu, Mala, Agni, Srotas, Adhishthana, Nidana Panchaka, Doshaja Prakriti, Rogi Pareeksha, Roga Pareeksha, and Manasa Prakriti*. The nearest similarity of autism with Ayurvedic diagnosis is *Unmada* (Insanity). The *Lakshanas* (features) described in *Unmada* with are a mixture of features of *Vata, Pitta & Kapha* singularly or collectively are even seen in Autism. Upon keen consideration of etiopathogenesis involved in ASD, there is a need of medications and *Panchakarma* procedures which can target the higher centers of brain in order to manage the core features of ASD. *Ayurveda* systems of medicine possess wealth of single herbs, formulations and *Panchakarma* procedures that can efficiently address the ever-increasing prevalence of ASD.

## MATERIAL AND METHODS

All relevant Ayurvedic and modern science literature along with journals and various internet databases were critically analyzed along with clinical experiences in managing Autism.

Methodology: the present case study designed as - Case introduction

Mother's complaints

Case conceptualization

Diagnosis

Treatment

### Case Introduction:

Five-year-old male child presented with mother at Government Ayurvedic Medical College and Hospital Akhnoor, Jammu, with the complaints of hyperactivity, no communication skill, less eye contact and very few speeches. Child has almost normal

physical development. Physical appearance or physical growth (weight, height) of child is appropriate to age. Child has displayed many diagnostic markers towards autistic disorder like limited eye contact, lack of communication with family members and peers, hyperactivity and violent tendencies. Some other diagnostic markers were irritable, chronically unhappy, Stereotypical body movements (Twirling, flapping of hands, toe walking), Neurological dysfunction like seizures, Sleep disturbance etc.

### Mother's Complaints:

Mother noted her child is unable to communicate with family members even with herself. He is not aware or not concerned about his dressing, food, toys etc. She concerned about his hyperactivity. She reported that child is doing purposeless movements and does not seat at one place for a minute. Mother has special concerned about child's language or few talk. She said that child gets irritated and had seizures in the past. Mother reported about his sleeping difficulties.

Mother complaints are concluded as child has difficulties in following domain-

- Watching same frame of a specific video all the time
- Poor eye contact
- Fail to develop peer relation
- Inattentive and impulsive
- Hyperactivity
- Language delay and inappropriate jargon.

### Case Conceptualization:

Overall child presented clinically significant problems like socially avoidant behavior with respect to interactions with same age peers and to a lesser extent family members, poor eye contact and hyperactive behavior. After all, keenly observation in 3 to 4 visits of child to OPD and as per parent's complaints, case was clinically conceptualized as-

### Social Interaction



Less eye contact  
Less facial expressions  
Not comfortable by touch / Pinch back.

### Communication



No/few talks  
Inappropriate Jargon  
No peer relationship even with mother

### Behavior



Lack of awareness  
Hyperactive  
Purposeless movements

**Diagnosis:** In this case, the diagnosis was made by clinical examination. The clinical symptoms considered to diagnose the case as Autism are-

- Qualitative impairment in social interaction, manifested as- marked impairment in the use of nonverbal behaviors such as eye to eye gaze, facial expression to regulate social interaction.
- Failure to develop peer relationship appropriate to developmental age
- A lack of seeking to share enjoyment to other.

**Treatment:** The primary goals of treatment are to maximize the child's ultimate functional independence and quality of life by minimizing the core features of the disorder.

Treatment includes-

- Panchakarma* Therapies
- Shamana Chikitsa* (Internal Medicine)  
Procedure is carried out in different phases or 'Sittings'. Along with *Panchkarma*, internal medicine was also started which included *Medhya* drugs that will be beneficial for the brain health and will balance the *Vata Dosha*.

### 1. Panchakarma therapies:

| Serial No. | Therapy                           | Drug used  | Duration |
|------------|-----------------------------------|--|----------|
| 1          | <i>Snehana</i> (Oleation Therapy) | <i>Kshirabala Tailam</i>   | 10 Days  |
| 2          | <i>Swedana</i>                    | <i>Shashatika Shali Pinda Sweda</i>  | 10 Days  |
| 3          | <i>Nasya</i> (Nasal Instillation) | <i>Kshirabala Tailam</i> , 2 drops in each nostril at morning and evening daily. | 10 Days  |
| 4          | <i>Basti</i> (Medicated enema)    | <i>Bhramighrita</i> , 30ml   | 30 days  |

### 2. Ayurvedic Interventions:

Brahmi Vati 1 tab BD x 10 days  
Brainton Syrup 1 tsp BD x 10 days  
Brihatvatchintamani Rasa 1 tab BD x 10 days

## RESULTS

Child gets relief symptomatically within 8 days of starting the panchakarma therapy and internal medications.

| No. | Symptoms      | Result  | Duration  |
|-----|---------------|---|---|
| 1   | Sleep         | Results:Child gets relief symptomatically within 8 days of starting the panchakarma therapy and internal medications. | After 2nd day of therapy                          |
| 2   | Hyperactivity | Child became calm, hyperactivity subsided a bit   | After a week of therapy                           |
| 3   | Eye contact   | Started looking and listening to other  | After 17th day of therapy                         |
| 4   | Communication | Communicate to mother and brother with few sentence   | After 1 month of therapy and internal medications |

### Panchkarma therapy:

The protocol for autism is focused on removing toxins from the system, to nourish and to energize the cells. Panchakarma is

helpful in the mobilization of toxin layer and excreting them from the body.<sup>[9]</sup> *Basti* (enema),<sup>[10]</sup> *Snehana* (oleation therapy) <sup>[11]</sup>, *Sirodhara* (pouring liquids <sup>[12]</sup> over the

forehead) and *Nasya* (nasal drops) [13] are few of the therapies applicable in children. However appropriate procedures should be selected based on the intellect of the physician.

## DISCUSSION

The above prevalence is sufficed to say that practising paediatrician will definitely encounter the child with Autism. According to Ayurvedic pathophysiology it may be a result of *Beeja Dosha* (genetic factor), *Ahara Dosha* (deprived diet), *Agni Dushti* (digestive fire disturbance), *Medha* (cognition) problems and *Vata Dushti*. Ayurveda offers different modes of *Chikitsa* (treatment) for safe approach in management of Autism in children. Autism needs a long-term intervention and the improvements in the patients after each course of management may amplify steadily.

## CONCLUSION

ASD is a chronic condition leading to varying degree of functional incapacity going into adulthood. With no definite cause and management, it is a challenge to check the growing enigma of ASD. Parents of children with ASD are looking for safer and more effective mode of treatment and in this regard Ayurveda system of medicine can be a great alternative in the management of ASD. The basic principle of *Tridosha Shamana* is followed in the present case report and the results obtained are encouraging and supportive of the potential that Ayurveda possess in managing conditions like ASD. Therefore, more research is needed to establish the efficacy of Ayurveda treatment in ASD.

### Declaration by Authors

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**Conflict of Interest:** The authors declare no conflict of interest.

## REFERENCES

1. American Psychiatric Association. Diagnostic and statistical manual of mental disorders, fourth edition text revised. Washington, DC: American Psychiatric Association; 2013.
2. A Parthasarathy. IAP Text Book of Paediatrics 4 edition 2009 Vol. II Jaypee Brothers Medical Publisher New Delhi, Chapter 18. Page no. 1053.
3. World Autism awareness day 2015, How to spot the sign of autism in children [Internet]. 2015 [Cited on 3/10/15]; Available from <https://www.ndtv.com/health/world-autism-day-2019-types-of-autism-you-must-be-aware-of-2016131>
4. Folstein SE, Rosen-Sheidley B. Genetics of autism: complex aetiology for a heterogeneous disorder. *Nat Rev Genet.* 2001; 2:943-955.
5. Bauman ML, Kemper TL. Neuroanatomic observations of the brain in autism: a review and future directions. *Int J Dev Neurosci.* 2005; 23: 183- 187.
6. Nelson KB, Grether JK, Croen LA, et al. Neuropeptides and neurotrophins in neonatal blood of children with autism or mental retardation. *Ann Neurol.* 2001; 49:597-606.
7. Lisa A. Croen, PhD; Daniel V. Najjar, MS; Bruce Fireman, MA; Judith K. Grether, PhD. Maternal and Paternal Age and Risk of Autism Spectrum Disorders. *Arch Pediatr Adolesc Med.* 2007; 161:334-340.
8. Autism is not a disease [Internet]. 2015 [Cited-2016 October 15]; Available from : <https://timesofindia.indiatimes.com/life-style/parenting/moments/autism-is-not-a-disease-this-and-other-myths-about-autism-busted/articleshow/90779970.cms>
9. Autism Spectrum Disorder, Ayurveda and Naturopathic Medicine by Dr. Todd A. Born & Dr. Lindsay Jones-Born. [Internet]. 2013 [Cited on 3/10/13]; Available from: <https://bornintegrativemedicine.com/blog/health-articles/autism-spectrum-disorder-ayurveda-and-naturopathic-medicine/>
10. Autism and Ayurveda. [Internet]. 2012 [Cited on 3/10/12]; Available from: <http://vishwacareclinic.blogspot.in/2012/06/autism-and-ayurveda.html>
11. Denise Tarasuk, The Magic of Daily Massage for Children with ADHD & Autism. [Internet]. 2016 [Cited on 3/10/16]; Available from:

<https://www.banyanbotanicals.com/info/ayurvedic-living/living-ayurveda/health-guides/ayurveda-for-kids/>

<https://www.chandigarhayurvedcentre.com/blog/ayurvedic-treatment-for-autism-in-children/>

12. Shirodhara, How Autistic Children Can be Healed with Ayurveda Therapy. [Internet]. 2016 [Cited on 2/10/16]; Available from: <https://www.chandigarhayurvedcentre.com/blog/ayurvedic-treatment-for-autism-in-children/>
13. Nasya and Shirodhara Autism and Ayurveda - The Effective Way of Treatment. [Internet]. 2016 [Cited on 2/10/16]; Available from:

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