

EFFICACY OF AYURVEDIC MANAGEMENT IN AUTISM SPECTRUM DISORDERS -A  
CASE STUDY

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## ABSTRACT

Autism also referred to as autism spectrum disorder constitutes a diverse group of conditions related to development of the brain. About 1 in 100 children has autism. Characteristics may be detected in early childhood, but autism is often not diagnosed until much later. In Ayurveda there is no direct reference for Autism but some references about abnormal behaviour it can be considered under Unmad i.e., mansik vikara. **Aims and Objectives** – To assess the efficacy of shirodhara and shaman aushdhi in the management of autism disorder w.s.t. unmad in children. **Setting** – OPD of Kaumarbhritya department M.A. Podar hospital worli Mumbai. **Material and Methods** – shirodhara were done for each 21 days upto 90 days. Assessment was done before and after shirodhara and shaman Aushdhi. **Result** -Improvement in the quality of Life. **Conclusion** -it can be concluded that shirodhara and shaman aushadhi was effective in autism w.s.r to unmada.

**KEYWORDS:** Autism spectrum Disorders, *unmad*, *shirodhara*, shaman *aushadhi*.

## INTRODUCTION

autism spectrum disorders (ASD) are a diverse group of conditions. They are characterized by some degree of difficulty with social interaction and communication. Other characteristics are atypical patterns of activities and behaviours, such as difficulty with transition from one activity to another, a focus on details and unusual reactions to sensations. Characteristics of autism may be detected in early childhood, but autism is often not diagnosed until much later. It is estimated that worldwide about 1 in 100 children has autism.<sup>[1]</sup> This estimate represents an average figure, and reported prevalence varies substantially across studies. Available scientific evidence suggests that there are probably many factors that make a child more likely to have autism, including environmental and genetic factors.<sup>[2]</sup> A broad range of interventions, from early childhood and across the life span, can optimize the development, health, well-being and quality of life of autistic people. Timely access to early evidence-based psychosocial interventions can improve the ability of autistic children to communicate effectively and interact socially. The monitoring of child development as part of routine maternal and child health care is recommended. Unmada is a term that represents broad classes of mental ailments in Ayurvedic literature that covers autism spectrum disorders too. Unmada is explained in Ayurveda as the derangement in the Manas

(mental functioning), Buddhi (application of the acquired knowledge), Samjna (perceptions), Jnana (experiences), Smriti (memory), Bhakti (emotional adhesions), Seela (conditioned Activities), Cheshta (behavior) and Achara (socio cultural Activities).<sup>[3]</sup> The clinical features of autism spectrum disorders merge well with that of Unmada. The major Cause for the above, explained in Ayurveda are the Beejadushti (genetic factors) which may have occurred due to the non-congenial diet and regimen of the parents before conception or the improper diet and regimen of Mother and psychological stress during pregnancy (Garbhaja) or unknown causes explained as a curse or the after effects of the unrighteous deeds done in the past (Prabhavaja). The non-congenial diet and regimen and psychological stress of children in their infancy will have an add on effect on the above-mentioned causes.<sup>[4]</sup>

## Diagnostic criteria

The diagnosis is based on the criteria of ISAA (Indian scale for assessment of Autism). ISAA is an objective assessment tool for persons with autism which uses observation, clinical evaluation of behaviour, testing by interaction with the subject and also information supplied by parents or caretakers in order to diagnose autism. ISAA consists of 40 items rated on a 5 – point scale ranging from 1 (never) to 5 (always). The 40 items of ISAA are divided into six domains as 1. social

Relationship and Reciprocity. 2. Emotional Responsiveness 3. Speech language communication 4. Behaviour patterns. 5. Sensory Aspects 6. Cognitive component.<sup>[5]</sup>

#### Scoring of ISAA scale for Autism

|               |                   |
|---------------|-------------------|
| No Autism     | Less than 70      |
| Mild Autism   | 70 to 106         |
| Mod. Autism   | 107 to 153        |
| Severe Autism | Greater than 153. |

**Case Discussion** – A 4.5 yrs. old male patient with poor eye contact, lack of social smile, unable to take turns in social interaction, shows inappropriate emotional response, Engages in Echolalic speech, difficulty in non-verbal language or gestures to communicate, Engages in

stereotyped and repetitive motor mannerisms, Hyperactive, usually sensitive to sensory stimuli, Inconsistent attention and concentration.

**Past History** - No History of any major illness, any drug allergy and any previous surgery.

**Birth History** – Full term normal vaginal delivery. Baby cried immediately, No NICU admission, History of neonatal Jaundice and double surface phototherapy for 2 days.

**ANC History** – No any specific finding.

**Immunisation** – completed till according to age, Diet – veg and non- veg diet.

#### Examination of patient

| General examination             | CNS examination   | Developmental milestones   |
|---------------------------------|---|--|
| Pulse -82/min                   | Higher mental function - Alert, active, oriented to place and person. | Gross motor -Gross motor development achieved according to age.  |
| Blood pressure – 90/60mmof Hg   | Speech -Bisyllables developed, unintelligible.                        | Fine motor – Fine motor development achieved according to age.   |
| Height -65 cm                   | Gait – Normal   |  |
| Weight -14.4kg                  | Motor system -Muscle power, tone and reflexes normal                  | Speech development -Babbles monosyllables developed at age of 3 yr. Non-Verbal communication                                 |
| Tongue – pink E/o of tongue tie |   | Social and emotional -social smile not developed. Social interaction – not achieved. Shows inappropriate emotional response. |

#### Past treatment history

Occupational therapy started in 2021. At SRCC hospital Hajiali Mumbai for one year.

#### Investigation

| Sr. no. | Date     | Investigation   |
|---------|----------|---|
| 1       | 29/01/21 | Lead level -6.32ug/dl   |
| 2       | 29/01/21 | Immunoassay<br>Sr. Homocysteine level -7.54umol/lit   |
| 3       | 01/02/21 | BERA -Normal  |
| 4       | 29/01/21 | Sr. calcium -9.5 mg/dl. Alkaline phosphatase -17g/dl<br>Phosphorus -5.10 mg/dl.<br>Vit -D25 Hydroxy -46.50ug/dl |

#### MATERIAL AND METHODS

| Treatment        | Medicine                                     | Dose                             |
|------------------|--|----------------------------------|
| Deepan           | Hingwasthk churna                            | 2gm per day with Koshna jal      |
| Abhyanga         | Kshirbala taila                              |                                  |
| Shirodhara       | Til taila +Bramhi tail<br>+joytismatI tail   | 1000ml for 21 days. upto 90 days |
| Shamanchikitsa   | Sarasvatarishta                              | 5ml twice a day                  |
|                  | Brahutvachitamani ras<br>+yasthimadhu churna | 1gm per day with Madhu           |
|                  | Vagshudhikar churna                          | 1 GM per day with Madhu          |
| Sadhya snehepana | Brahmi Ghrita                                | 10 ml per day for 30 days        |

**Assessment criteria:** on the basis of ISAA scale, six Domains 1. social Relationship and Reciprocity. 2. Emotional Responsiveness 3. Speech language

communication 4. Behaviour patterns. 5 Sensory Aspects 6. Cognitive component.

Improvement after treatment:

1. Improvement in eye contact
2. Give response when calling him.
3. Follows instructions of parents and care takers.
4. Verbal communication improved.
5. Interested in peer relationship
6. Improvement in speech
7. Complete a task when told to do so.
8. Sits quietly in a place when he is said to.
9. Calms
10. Memory increased he can recall all paths and incidences.

#### Score Before treatment and after treatment

| Domains                             | Before treatment | After treatment |
|-------------------------------------|------------------|-----------------|
| Social Relationship and Reciprocity | 34               | 28              |
| Emotional Responsiveness            | 18               | 16              |
| Speech language communication       | 31               | 27              |
| Behaviour patterns                  | 14               | 10              |
| Sensory aspects                     | 14               | 10              |
| Cognitive component                 | 11               | 09              |

#### DISCUSSION

The improper diet and regimen in children lead to Rasadushti. The main function of rasa being Preenana (Preenanamchittapreeti)<sup>[6]</sup> which can be considered as the general wellbeing of the individual both physically and mentally. Thus, rasa can be considered as all the factors That help to maintain the homeostasis of the body. Hence Rasadushti especially in those who are prone to psychological disturbances (with Heenasatwa) due to Hereditary (Sahaja), improper food and stress during Pregnancy (Garbhaja) or other unknown factors (Prabhavaja or Poorvajanmakrita karma) leads to Unmada In children. The treatment aims at alleviating the Rasadushti in the body. During the process of patient concentrations Of Dhara Drvya (Medicated oil or any type of liquid), this is falling on his forehead, which increases the intensity of brain waves and decreases the brain cortisone and adrenaline level. This Factor is also work as an anti-stress effect of Shirodhara.<sup>[7]</sup> Some Marma (Vital spot) is located in forehead and head region as mentioned in Ayurveda classics. Mainly Sthapni, Utshepa, Avarta, Shankha and Apanga Marma Are situated in this region.<sup>[8]</sup> According to Acharya Bhela Bhrumadhya (Between both eyebrows) is the site of Chitta (Mana). It is also place of Sthapni Marma.<sup>[9]</sup> Most of the Marma of head region are Agni and Vayu Pradhana Mahabhoota.<sup>[10]</sup> The site of Sthapni Marma and the site of pituitary and Pineal gland exist at the same level. The function of pituitary Gland is controlled by hormones. It is the master of the gland. It Has the capacity to maintain all the endocrine system of human Body<sup>[11]</sup> Mental stress and irritability where the causative factors Were endocrine system gets imbalance of its normal function.<sup>[12]</sup> Due to the stimulation of Sthapni Marma and indirect stimulation of pituitary gland brings changes in psycho-somatic level. Hence Shirodhara therapy helps in reliving the mental stress by Regulating the normal function of this gland. After that Medhya rasayanas are given to improve the speech and Cognition. Special care was taken to maintain proper Digestion using Deepana drugs keeping in mind the gut Brain axis theory. Pathyaahara and Vihara (congenial diet and regimen for the condition) was also advised for patient. The above

finding shows there is improvement in the social & communication, Emotional and behavioural Conditions of the patients, though there is mild improvement in the speech development, patient also given, occupational therapy, speech therapy, in another hospital. Language development is a complex procedure which needs more time for development. The current observations are based on a Case study shows clinically significant results which is very infrequent in the Autistic children with natural progression. The Ayurvedic management Will increase the attention & social interaction. Which will help the children to engage more in other therapies.

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