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ABSTRACT:

Autism is the way of life for some. Branding the children as autistics is not going to help them in a chaotic world like ours and would instead lead to further deterioration of their simple life. Several scientific views about the condition are mostly directed towards the dead end of the medical science. The condition of *Unmada* described in the Ayurvedic classics is a large wing under which many psychological disturbances can be brought. The very definition of *unmada* incorporates various forms of inappropriate actions exhibited by the individual as a result of distortion of normal mind, intellect, conscious knowledge, memory, desire, manner and behavior. Presently, supportive therapies for training the children with Autism like Occupational therapy, behavioral therapy, speech therapy, psycho therapy, etc are being used. Certain medications like anti psychotic drugs are also used for the severe conditions. To conclude, Autism is perceived as a manifestation having its root deep in the *Bija dosha* (genetic predisposition) and activated by a favorable environment. Hence it is considered as *Sahaja* form of *Unmada*, which is a lifelong condition

Key Words: Ayurveda, Autism, Balroga, Manas satva

INTRODUCTION: Autism is the way of life for some. Branding the children as autistics is not going to help them in a chaotic world like ours and would instead lead to further deterioration of their simple life. Several scientific views about the condition are mostly directed towards the dead end of the medical science.¹ Autism which can be managed effectively through the rational utility of certain Ayurvedic drugs and treatment procedures are based on a sound understanding of the condition with Ayurvedic principles. The treatments employed are built on knowledge and professional experience in Autism management and have been proven clinically to be effective.² The present paper will deal about Autism, the Ayurvedic perspective of Autism, Ayurvedic interventions and the ongoing research in the Department of Kaumarabhritya on the same subject.

Ayurveda: Ayurveda, the Science of Life is one of the oldest systems of natural medicine in the world. The perception of life in line of Ayurveda would be a different experience for those who view it as a complex anatomical machine being run by multitude of chemical reactions. The beauty of Ayurveda lies in its strong view of *Jivita* (life) as sustaining combination of *sareera* (physical body), *satva* (mind), and *atma* (spirit).³ The spiritual plane which is left behind by the modern medicine forms the ground on which physical and mental faculties act upon to produce LIFE according to Ayurvedic philosophy.⁴

The foundation of the science lies on the *Pancha maha bhuta* theory which conceives the formation of the Universe and its contents from the five elements, viz space, air, fire, water and earth, what the present day Scientists postulate as

Atomic Theory.⁵ This theory relates the formation of animate and inanimate things from the five great elements.⁶ The living being is considered as the miniature representation of the universe composed of the same elements.⁷ Whatever happens in the universe happens within the body of the living things too. The ratio of each element is different from one organism to the other contributing to the uniqueness of each species. This principle is applicable to man especially, where one can find the distinctness of one person from the other. The same distinctness is responsible for the differentiation at the organ system and cellular levels. Each person has his own traits and characteristics which differentiate him from the other and this is addressed to as *prakriti* (Mind – Body type) in Ayurveda.⁸

The five element composition of the human body is explained in a simpler version of tridoshic theory for the sake of understanding health and ill health in Ayurveda. The tridoshic theory forms the basis of description of structure and function of living beings. The *dhatu* is the structural unit and the *dosha* is the functional unit of the human being. Each *dosha* regulates many functions in the body, but these functions can be summarized in three basic principles.⁹ *Vata* represents the elements of space and air. It controls all forms of movement in the body including blood circulation, passage of food through GIT, breathing, transmission of nerve impulses, etc. *Pitta* represents the element of fire. It governs metabolism and biochemical processes and is responsible for the transformation of food, air and water into building blocks of physiology. *Kapha* represents the elements of earth and water. It governs

the formation and structure of tissues, muscles, bones, sinews and so forth.¹⁰

The states of health and disease are determined by the relative presence of these bodily humors.¹¹ A range of behavioral, dietary, mental, emotional and environmental factors can cause this to happen. The macroscopic vision of the Ayurvedic science as exemplified in its definition of life can be reinstated by its definition of the state of health (*Swastha*) which is as follows, It is the state of harmony established at the physical plane as normalcy or equilibrium of the bodily humors, digestion and metabolism, tissue status and the excretory functions; at the mental plane as proper functioning of mind and sense organs; and at the spiritual plane as soul gratification. In short, health is a state of physical, mental, social and in particular, spiritual wellbeing and not merely the absence of disease or infirmity alone.¹²

Ayurvedic Perspective of Mind : The terms *mana*, *cetasa*, *satva*, etc that represents mind are found all through the classics of Ayurveda as it is considered as the part and parcel of a human.¹³ The influences of bodily and mental factors act mutually on each other, rather as separate entities. Any intention or desire evolved at the spiritual plane to establish contact with the external world by means of the physical plane can be achieved only by the transmission through mental plane.¹⁴ Therefore, the mind is an inevitable component of existence.

Mind is essential for acquisition of knowledge through sensory perception, experience or learning. The object of the sense is perceived through the sense organ by the mind.¹⁵ It is the mind that perceives the object or undergoes the experiences and not the

sense organ. Then the mind analyses the nature of the input and Buddhi (intellect) determines the specific properties of the object and drives an individual to speak or act accordingly. Mahabharata quotes that the object is seen by the mind through the eyes and not by the eyes alone, as even the visible object goes unnoticed when the mind is disturbed. It is only when there is required mental connection, that one can understand things. This substantiates the presence of mind. The qualities of mind are its minuscule size and solitary presence which enables its pace to traverse at all levels and confines to single perception at a time, respectively.¹⁶

The above explanations are necessary in order to understand the concept of healthy mind in Ayurveda and thereby to understand the conditions like Autism, a disease due to deranged mental faculties.

Autism & other PDDs in Ayurveda and Disorders with Autistic features

:The conditions of Autism and related PDDs are of neurological in origin, developmental in progress and psychological in manifestation, according

Ayurvedic principles.Uncertainty prevails over the etiological factors of Autism as new research results are being out on every other day. Though, a lot of fingers point to the direction of genetic involvement, the role of environment in the causation of the disease cannot be subdued¹⁷.

There is definitely a genetic predisposition to this condition which is proved by the higher incidence rate among the monozygotic twins in comparison with the heterozygous twins¹⁸. The evidences about anatomical anomalies (as in Tuberous Sclerosis)¹⁹, infections (as in congenital rubella syndrome)²⁰, sensory damage (as in

hearing impairment)²¹, immunocompromise (as in food allergies)²², high serotonin levels²³, metabolic errors (as in phenylketonuria)²⁴ associated with Autistic features also suggest the complexity in the pathogenesis of this condition. The interaction between the genes and the environment can lead to the expression of this condition. Therefore, a baby is born with autism or susceptible to it, should the conditions favor.

The causes for a disease according to Ayurveda are threefold. They include

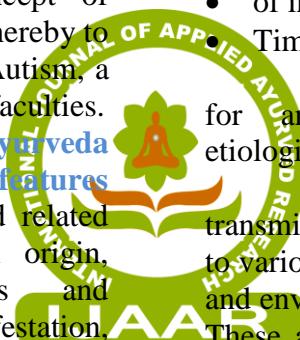
- Improper contact of the senses with their objects,
- Improper functioning of the mental faculties, in turn leading to execution
- of inappropriate actions - and Time

This broader version of causes for any disease encompasses all etiological factors in Autism also.

The genetic encoding which is transmitted from generations is subjected to various changes due to food, activities and environment during each generation. These are in turn taken up by the next generation. When this form of modified genetic material becomes pathological, the bija (gamete) become deranged. The deranged Bija is responsible for the basic genetic susceptibility to develop the features of autism.

The role of environment is of three fold in which the antenatal conditions take a prime role according to Ayurveda. The detailed description about the prescriptions and proscriptions- *Garbhinicharya* laid down for the pregnant mother is worth a mention²⁵

Ayurveda believes that in addition to the food and activities of the pregnant mother, her mental status plays an important role for the development of



health and disease – both physical and mental in the child²⁶. The mother thinking ill of others will transmit a negative energy and will affect the child which may become an envious antisocial element when born²⁷. The grief stricken lady may give birth to a child who is apprehensive²⁸. Therefore, the intrauterine experiences – physiological, psychological and pathological contribute to the wellness or otherwise of the child. Abnormal Intrauterine environment can produce growth retardation, developmental anomalies, etc, that may cause autistic features in a genetically susceptible child²⁹.

Perinatal events like hypoxic injury, ischemic injury, etc have resulted in the development of autistic features in some³⁰. Postnatal, neurological infections³¹ and seizures³² and consequent brain damage have been noted as contributors of autistic features in children. There are case references which do not have any of the aforesaid events.

Patho- psychology of Autism

Patho- psychology of Autism can be drawn as follows

The condition of *Unmada* described in the Ayurvedic classics is a large wing under which many psychological disturbances can be brought.

The very definition of *unmada* incorporates various forms of inappropriate actions exhibited by the individual as a result of distortion of normal mind, intellect, conscious knowledge, memory, desire, manner and behavior³³.

The risk factors to develop a condition like *Unmada* are the presence of *Upaklishta satva* (fragile mental constitution) and *Utsanna Dosha* (highly deranged bodily humors), since the events in the physical body affect the

mind and that of mind affect the body, just like heat being transmitted from a hot container to its contents and vice versa³⁴.

Autism, typical or atypical and other disorders with autistic features fall under the category of *Unmada*, in which one or more of the mental faculties go wrong. In the definition of *unmada*, we find some of the impaired faculties which are seen in Autism spectrum Disorders³⁵. These include impairment of

Manas – mind – total or partial loss of sensory perception

Buddhi – intellect – partially affected – could be abnormal as seen in savant abilities

Samjna Jnana – conscious presence – seen as being lost in their own world, barring one or more sensory stimuli

Bhakti – desire – innate willing to communicate with others

Seela – manners – inappropriate emotional outbursts and adhering to specific rigid routines

Cheshta – activities – motor stereotypes which are inappropriate and compulsive
Achara – learnt skills- impaired socialization skills, inability to follow commands, losing of good habits, etc.

The person with Autism behaves in a way that simulates with a chariot not controlled by its charioteer³⁶. Looking back at the causative factors for Autism, we can find that the genetic material contributes to the formation of *Alpa satva* and *Utsanna Dosha*. In the presence of these risk factors, other triggering factors like the environmental, dietary, emotional and social factors of either child or the pregnant mother precipitate the autistic features in the child, which is manifested as the pervasive developmental disorder.



Clinical interventions: Presently, supportive therapies for training the children with Autism like Occupational therapy, behavioral therapy, speech therapy, psycho therapy, etc are being used. Certain medications like anti psychotropic drugs are also used for the severe conditions³⁷. According to Ayurveda the management of any condition can be detailed under three categories (11). They are³⁸

1. *Yuktivyapasraya* – rational prescription of drugs, therapies, food and activities
2. *Satvavajaya* – methods to organize the mental faculties
3. *Daivavyapasraya* - rites and rituals to ward off the unseen evil forces and in turn managing the mind.

Management of Autism affected children is also carried out on this line of treatment. Autism requires therapies which act at the physical, mental and spiritual planes. The effective deployment of these therapies will ensure a better outcome for the child.

Various Ayurvedic treatments which have been found to be effective in Autism management include

1. Medicines to improve the digestive functions

The idea of toxic metabolites crossing the gut mucosa to reach the brain and impair its functions is mentioned in Ayurvedic classics. This type of toxic metabolites is known as *Ama* which on accumulation in the system will lead to disease³⁹. This therapy aims at improving the digestive and metabolic functions of the child to reduce the amount of toxic substance and improve the intestinal mucosal immunity. E.g. – *Kalyanakam Kashayam*⁴⁰, *Amrtottaram Kashayam*⁴¹

2. Internal administration of medicated ghee⁴²

The drugs known to have psychotropic effects are processed in lipid base to ensure the transportation of active ingredients across the BBB. Eg. *Kalyanaka ghritam*⁴³, *Chetasa ghritam*⁴⁴.

3. Application of medicated oil on head

Application of oil on head is said to nourish the sense organs since four sense organs and the centers of all of them lodge in the head⁴⁶. Continuous application of medicated oil at the anterior fontanel region will ensure the diffusion of active ingredients through capillaries of the scalp and into the superior sagittal sinus and thereby into CSF⁴⁷. E.g. *Vatashini Tailam*⁴⁸, *Chandanadi Tailam*⁴⁹.

4. Purificatory procedures

The high levels of unwanted byproducts of various mechanisms when not properly eliminated can cause high derangement of the bodily humors and in turn increase the intensity of Autism. Large levels of serotonin, peptides found in the system of the children with autism can be effectively removed by Panchakarma the five purificatory procedures. E.g. *Dwi pancha mooladi Asthapana Vasti*⁵⁰

5. Nasal insufflations of medicinal powders

The process of blowing medicated powders through the nostrils called as *Dhmana Nasya* causes the elimination of accumulated, unwanted neurological byproducts. E.g. *Kachuradi Churnam*⁵¹ The *satvavajaya* and *daivavyapasraya* aspects of Autism management in addition to the above include psychotherapy, etc which improve the social skills of the child. Moreover, it is intended to modify the perspective of the society about the child.

Conducted Research: A pilot research has carried out in the Department of Kaumarabhritya, Govt. Ayurveda College Hospital for Women and Children, Poojappura, Thiruvananthapuram on the efficacy of selected Ayurvedic treatments in managing Autism in children of 3 – 16 years, since one and half years⁵². The duration of the treatment course was three months and it includes

1. Internal administration of medicated ghee: *Chetasa ghrita*
2. Head application of medicinal paste: *Vatasani Taila* and *Pancha gandha Choorna*
3. Nasal instillation of medicated oil: *Ksheera Bala Taila*

The results from those who have completed the study shows that there is significant improvement in the socialization, physical/ cognitive / behavioral problems. The improvement in communication skills is also significant. The generalized subjective improvements as mentioned by the parents and special educators include the significantly lower effort to train the children in various other therapies, reduction in the associated features of hyperactivity and attention deficit.

Conclusion: To conclude, Autism is perceived as a manifestation having its root deep in the *Bija dosha* (genetic predisposition) and activated by a favorable environment. Hence it is considered as *Sahaja* form of *Unmada*, which is a lifelong condition. The Ayurvedic interventions are not going to alter the genetic makeup altogether. The interventions rationally employed based on the treatment principles of *Unmada* like purificatory therapies, various procedure based therapies and medications try to remove or reduce the effect of the triggering elements which

have precipitated the condition. So, the condition requires a long term intervention and the improvements seen after each course of management are amplifying steadily. Ayurveda opens a large door in the management of Autism and similar conditions and shows the ray of hope to those in dark.

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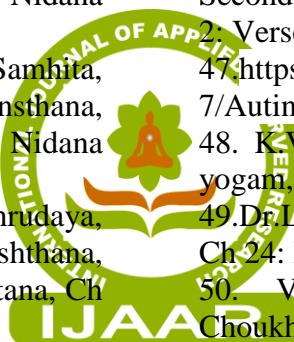
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Source of support: Nil
Conflict of interest: None
Declared