

Autism: A Silent Cry For Help

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ABSTRACT:

"Autism" or "autism spectrum disorder" is a disorder characterized by deficit in social interactions and communication with restricted interest usually recognized by the age of 2 years. Various causes have been linked with autism such as genetic, environmental, vaccination etc. There are many signs and symptoms of this disorder. Multiple therapies are available to groom these children so that they can lead a normal independent life. Electronic databases as PubMed, Google.com and Google scholar were searched by using key words and phrases such as autism, autistic behaviors, autism spectrum disorders, speech therapy, occupational therapy and social deficit disorders. Literature search of abstracts, original articles, review articles and case studies published within past 10 years (Sept 2004- Sept 2014) was carried out through the mentioned search engines. Thus Autism is a neuro-deficit disorder. Affected children are not mentally handicapped and therefore can be trained well to spend a normal independent life. **Keywords:** Autism, Autistic Behaviors, Autism Spectrum Disorders, Speech Therapy, Occupational Therapy, Social Deficit Disorders

INTRODUCTION:

"Autism" or "autism spectrum disorder" is a neuro-developmental disorder and is characterized by persistent deficit in social communication and interaction, restricted interest and repeated pattern of behavior. These symptoms are usually recognized in early years of life (<3 years of age). Word spectrum refers to wide range of multiple symptoms, skills and levels of disability in these children making them mildly, moderately or severely autistic¹. Autism is not a single disorder with one known cause, in fact it is a group of multiple disorders with numerous causative factors² such as

(A) Genetic Factors:

Autism runs in the families, if one of the family members has this disorder, then there are increased chances that other blood relatives would be at a greater risk. If one twin is suffering from autism then the other has much greater chance of having it. In the same way if one child has it, the chances are increased upto 35% in the next children to have the same kind of disorder³. Some might also report that it was never in the family before. In such cases a sudden change in normal genetic pattern simply called as mutation may be responsible⁴. Identification of a specific gene related to this disorder has not succeeded as yet. Generally it has been noticed that boys are 4-5 times more prone to have this disorder than girls⁵.

(B) Environmental Factors:

Multiple environmental factors have been identified and studied such as maternal stress, maternal prenatal stress, gestational diabetes, infections during gestation, use of drugs specifically anti-epileptics and anti-depressants during pregnancy⁶. Along with that release of meconium in the amniotic fluid can also be one of the factors. A very important factor is birth asphyxia that is delayed

cry after birth leading to decrease oxygenated blood supply to brain tissues in early minutes after birth might also lead to such neuro-deficit disorder. Even smoking during pregnancy can lead to autism in the baby^{7, 8}. All these factors should be kept in mind for the next child if any child is affected in the family.

(C) Vaccines:

Many parents think that after vaccination the signs and symptoms of autism appeared in the child. The fact is more with mercuric element in the vaccines or combined vaccines such as MMR (measles, mumps and rubella). Many studies were recently conducted to sort out the problem but none have showed a positive relationship in this regard^{9,10}.

PATHOPHYSIOLOGY:

It has been suggested that in autism there is some deficiency in brain factors¹¹ some or all parts of the functional brain can be affected¹². The pathology starts at the time of gestation and it is influenced by the environmental factors¹³. Mostly that part of brain is affected which is related to cognitive functions¹⁴. The proposed reasons for the pathogenesis are excess of neurons,¹⁵ disturbed integration of neurons,¹⁶ imbalance in excitatory and inhibitory neurons,¹⁷ abnormal functioning of synapse and dendritic spine¹⁸.

SIGNS AND SYMPTOMS:

Big sized head at birth or after few months of birth with CT scan showing abnormal brain development can be a sign of autistic child. In later years they are focused on only certain objects with no eye contact with parents. The children have low social interaction and decreased or no verbal communication¹⁹.

Social Impairment and Lack of Verbal Communication: These children have lack of interest in the friends of the same age, in fact they would like to play only few games of their own choice. They would not see the whole cartoon movie but would like to prefer repetition of few favorite scenes in the cartoon movie. There is usually lack of proper eye contact with family members and parents. One of the major sign of autism is lack of speech even after the age of 3 years. In some cases there might be a history of babbling in early years but subsequently these children adopt complete silence^{20, 21}.

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The facial expressions are at times not matching with the motor actions and one is unable to judge the sign of grief and amusement. These gestures and movements can be vague and can be noticed upon comparing with children of the same age. They are possessive for their toys and dislike sharing with others. They find difficulty in pointing an object and also proper waving to say goodbye^{22, 23}.

Repeated Actions:

These children can be noticed by repeated motor actions such as repeatedly moving their legs to and fro, flapping of the hands. They also like to move the object forward and backward many times. They might play with the spoon and fork for hours without getting tired^{24, 25}.

Slow Learners:

They are slow learners; they do understand but take time to comprehend the commands. In mild cases they can lead a healthy life but for them it is slow to understand the proper meaning of words and correlate the verbal command with the prevailing situation. At times they also show immature behavior such as unnecessary crying and physical aggression to show their frustration on objects²⁶.

Lack in Communications:

Children start babbling normally by the age of 2 and by 3 years they can say a sentence of few words. But most of the autistic children cannot say even a word and there is complete silence on their part with normal hearing^{27, 28, 29}.

Extraordinary Abilities:

These children are gifted with some extraordinary abilities more than a normal child of similar age such as ability to decode language, musical skills, mathematics problem solving, artistic abilities, computer and software skills, memory skills, directional memorizing skills, solving puzzles etc. Other surprising activities can be noticed by the parents such as playing of their favorite cartoon DVD in the player and use of remote to rewind and fast forward their favorite scene. They can also search and reach for their favorite food in refrigerator and cabinets. They can at times unlock the door to go out of the house. Simply the reason is that they have a strong devotion and motivation for their favorite stuff and want to have it at any cost^{30, 31}.

Gastrointestinal Disorders and Eating Habits:

Many parents report that these children have multiple gastrointestinal problems, such as gastritis, colitis, constipation etc. More than 40% of these children have such symptoms. They are also involved in eating objects that are not food such as chalks, paint, crayons, paper, clay or dirt. This problem is known as PICA. They persistently keep fingers or other objects in their mouth such as toys^{32, 33}.

Cars:

Cars stand for childhood autism rating scale. It is a 15

item rating tool used to characterize the behavior of child diagnosing the severity of the disease. Other scales used are Gillian autistic rating scale, Modified checklist for autism in toddlers, Social responsiveness scale and Screening tool for autism in 2 years³⁴.

MANAGEMENT OF AN AUTISTIC CHILD:

After final diagnosis it is hard for the family to face the terrible situation. In that case it is the prime duty of parents not only to take care of their child but also share grief and care for each other. They should give time to relax and think for better future plans. One should not lose hope and faith in Allah. They also need to evaluate and upgrade their strength, skills and attitude to deal with the emotional situation.

It is then the duty of extended family members to show flexible behavior and empathy to the parents. They should show love and care for the child and parent to cope up with the situation. They can also provide help in multiple ways. Even not asking repeatedly about the problem and condition is very important. They can also learn easy therapies and help the child when required. They can search on net and provide the latest information to the parent.

Parents should look for best possible nearby hospital where the therapies can be done. The treatment should be started at earliest and should be continued if it seems to be not working in the beginning. Mothers are required to learn these therapies and try them at home as well. They also need to interact with the parents of similar children and share their experiences. That would also help to solve many of the issues and difficult situations. They are required to stick to a schedule for the autistic child as these children get agitated if their daily routine is disturbed. These children are required to reward and praise for good work. Room should be decorated with colorful pictures. The pillow should be soft and blankets are required to be little heavy for them. Practically these things have been fruitful to decrease the mood swing in these children. They should be given time for fun. Their favorite toys and other stuff should be in their range. Certain sensory stimuli such as sounds, toys and stuff which make them cry should be kept away. Home should be made a safety zone in order to avoid worse situation³⁵.

Speech Therapy:

It includes variety of methods for the education of these children. There are some who do not talk whereas few of them love to talk but they are unable to comprehend the information. In this program firstly the speech evaluation is done and according to the result therapy is advised with the aim to develop useful communication. In totally nonverbal response alternative therapies of are required to taught and learn³⁶.

Occupational Therapy:

It helps the child to come out of their shyness and

segregated attitude. It also provides them to gain confidence and independence to carry out the tasks such as feeding, toilet training, dressing, grooming and enhancement of social skills³⁷.

Physical Therapy:

There can be small sessions of exercise with or without equipment to enhance motor activity of these children.

Primary Education and Skills:

It is a prime need of every child to have primary education. Children with mild cases can be educated in normal primary school. It is the responsibility of the teachers to focus on the issues and put more effort to train such children. They can be taught well and their some extraordinary quality can be notified and encouraged by the teacher. School going and sitting with peers provide healthy environment and social interaction with the children of the same age^{38, 39}.

Medical / Pharmacological Interventions:

Some researchers and reported articles have put emphasis that certain brain enhancers such as Encephabol can be helpful in treating disorders such as autism. But on ground realities none of such agents have been found fruitful. At times Risperidone and Aripiprazole (antipsychotics) are given to decrease the anxiety and irritability. Certain drugs such as antidepressants like Fluoxetine and Sertraline can also be given to treat depression and repeated behavior in these children⁴⁰.

Adulthood:

Before the child finishes the school the parents should think for the better future of the child. They should look for the best program and facilities related to the child interest so he can adopt independent living⁴¹.

CONCLUSION:

Autism is a neuro-deficit disorder. These children are not mentally handicapped so can be trained well to spend normal independent life. It is the key responsibility of not only parents but other family members and teachers to help, educate and guide such children to become responsible and respectable members of the society.

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