Difference Between Autism and ADHD

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Key Difference – Autism vs ADHD

Psychiatry has evolved to become one of the major fields in the modern medicine. But unfortunately, this rapid progress has not facilitated the expansion of layman’s understanding on the subject. Therefore people lack proper knowledge about psychiatric disorders such as autism and ADHD. ADHD is a persistent pattern of hyperactivity, inattention, and impulsivity that is frequently displayed and more severe than in the individuals at a comparable level of development. On the other hand, autism is a psychiatric disorder characterized by a triad of impairments namely, social deficits, communication deficits and restricted or repetitive behaviors and interests. Although these two disorders share quite a few common clinical features, there is a distinct difference between autism and ADHD; autistic patients show an unusual interest in repetitive movements and patterns when compared to ADHD patients.

What is ADHD (Attention Deficit Hyperactivity Disorder)?

ADHD is a persistent pattern of hyperactivity, inattention, and impulsivity that interferes with normal functioning.

Diagnostic Criteria

- Presence of the core symptoms: inattention, hyperactivity, and impulsivity
- Onset of the symptoms before 7 years of age
- Presence of the symptoms at least in two settings
- Presence of the definite evidence of impaired function
- The symptoms should not be due to any other associated psychiatric condition

Clinical Features

- Extreme restlessness
- Sustained overactivity
- Poor attention
- Learning difficulty
- Impulsiveness
- Restlessness
- Accident proneness
• Disobedience
• Aggression

The prevalence of ADHD varies according to the criteria that are used in making the diagnosis. Males are three times more likely to have the disease than females.

ADHD patients have a higher tendency of developing other psychiatric comorbidities such as depression, tic disorders, anxiety, oppositional defiance disorder, PDD and substance abuse.

Figure 01: ADHD
Etiology

Biological Causes

- Genetics
- Structural and functional brain anomalies
- Dysregulation in the dopamine synthesis
- Low birth weight

Psychological Causes

- Physical, sexual or emotional abuse
- Institutional rearing
- Poor family interactions

Environmental Causes

- Exposure to various drugs and alcohol during the prenatal period
- Perinatal obstetric complications
- Brain injury in the early life
- Nutritional deficiencies
- Low socio economic status
- Lead toxicity

Management

Management of ADHD is carried out according to the NICE guidelines.

- General measure such as psychoeducation and self-instruction materials can be helpful in the management of mild form of the disease
- The knowledge and awareness of the parents on ADHD should be improved
- Behavioral therapy
- Social skills training
- Pharmacological interventions are used as the last resort

Stimulants such as dexamphetamine are usually prescribed.

There are two main indications for the use of medications in the management of ADHD

1. Failure of the nonpharmacological interventions to successfully alleviate the symptoms
2. Presence of severe functional impairment
What is Autism?

Autism is characterized by a triad of impairment.

1. Social deficits
2. Communication deficits
3. Restricted or repetitive behaviors and interests

These symptoms should be present in the child before the age of 3 years to make a diagnosis of autism. The degree of aforementioned functional disabilities varies from one individual to another.

Before arriving at a definite diagnosis, it is important to exclude the possibility of other conditions such as Asperger’s syndrome, deafness and learning disability, which also have similar manifestations.

Etiology

The exact mechanism of autism has not been completely understood. But a large number of studies carried out on the subject over the past few decades have disclosed the significant association of the following factors with the incidence of autism.

- Hereditary factors
- Organic brain disorder
- Cognitive abnormalities

In a majority of the cases, other functional impairments remain unchanged although the patients acquire the ability to speak. Even as adults these autistic individuals can exhibit abnormal behavioral patterns and usually show a reluctance to develop social interactions.

Management

- Psychoeducation
- Parental training programs
- Selecting a suitable educational setting
- Medications such as atypical antipsychotics, melatonin, and antidepressants should be prescribed with caution and proper follow up is required to prevent the occurrence of complications associated with the use of these drugs.
- Speech and language therapy
Behavioral modification programs
Social skill training

Figure 02: Autism

What are the similarities between Autism and ADHD

- Both conditions are psychiatric disorders commonly seen during the childhood.
- Symptoms associated with both ADHD and autism can also persist during the adult life of the patient.
- Occasionally these two conditions can coexist.
- Both these disorders have a genetic predisposition.

What is the difference between Autism and ADHD?

| Autism vs ADHD          | ADHD is a persistent pattern of hyperactivity, inattention, and impulsivity that is frequently displayed and more severe | Autism is a psychiatric disorder characterized by a triad of impairments namely; social deficits, communication |
than in the individuals at a comparable level of development. deficits and restricted or repetitive behaviors and interests.

### Social Interactions

| The patient likes to have social interactions. | The patient is reluctant to develop social interactions. |

### Repetitive Movements and Patterns

| A preference towards patterns and repetitive movements is not seen. | The patient shows a keen interest in repetitive movements and patterns. |

### Gestures

| The patients can use gestures for communication. | The patient does not use gestures for communication. |

### Conversation

| If the patient is comfortable with the topic, he/she does not have any difficulty in continuing a conversation. | Patient has difficulty in starting and continuing a conversation or a discussion. |

## Summary – Autism vs ADHD

Autism and ADHD are two psychiatric problems predominantly seen among the pediatric patients. In spite of them sharing many common clinical features, the difference between autism and ADHD can be identified by carefully assessing the patient’s interest in repetitive movements and patterns, which can be regarded as the hallmark feature of an autistic child.

**References:**

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1. “Autism boy help” By hepingting – (CC BY-SA 2.0) via Commons Wikimedia
2. “ADHD Brain” by amen clinics photos ac (CC BY-SA 2.0) via Flickr

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