

Plenary Session: “Today’s Research, Tomorrow’s Practice®: Autism Spectrum Disorders”

Moderator: Bernard Dolan, OD, FAAO

THE CLINICAL FACE OF AUTISM SPECTRUM DISORDERS

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SYNOPSIS: Autism is a developmental disorder that affects a child’s ability to communicate and relate to others. This presentation will review clinical signs and symptoms of ASD in children including “red flags” signifying the need for further evaluation.

Dr. Robinson will present a diagnostic and treatment approach that goes beyond the ‘autism’ label to understanding the individual child’s strengths and challenges in order to design targeted treatment approaches to help each child make developmental progress.

Clinical challenges will be illustrated through case stories including visual spatial challenges optometrists may encounter in their practice.

OUTLINE

1. Autism is a developmental disorder of childhood that affects a child’s ability to communicate and relate.
 - a. Autism is not a rare disorder (1 in every 88 new births)
 - b. Autism is a spectrum disorder. Clinical characteristics are heterogeneous
 - i. Description of core symptoms
 - ii. Description of associated symptoms
 - iii. Description of associated somatic/medical symptoms
 - iv. The DSM 5 approach to making the autism diagnosis
 - v. Red Flags for ASD
2. Autism is a neurobiologic disorder
 - a. Genetics, neuropathology and immune system implications in pathogenesis to be discussed by Dr. Amaral
 - b. Electrophysiology evidence of under connectivity will be presented

- i. Implications of under connectivity of interest to Optometrists will be demonstrated by showcasing research relating to “how children with ASD think about what they see”

3. ASD: Making the Diagnosis

- a. Gold standard tools: ADI, ADOS
- b. Going beyond the autism label to know each child as an individual

4. The Whole Child ASD Approach: Identifying Strengths and Challenges

- a. Individual differences
- b. Ability for social communication: functional capacities
- c. Understanding how to support a child’s developing relationships
- d. The role of affect or emotional connection to organize and integrate all the brain functions
- e. The Floortime approach: It’s all about the interaction!

5. ASD Treatment Planning

- a. Philosophy
- b. The Treatment Wheel/Review of The Child-Family-Team Partnership
- c. Detours to Developmental Progress
- d. Medical Care in ASD

6. Behavior as Communication – What a Child is Really Telling You

- a. Illustrated through Case Vignettes to identify medical problem-solving emphasizing seizures, anxiety, challenges with visual spatial thinking

7. Potential for Positive Outcomes Across the Lifespan for individuals with ASD

An Overview of Current Research on Autism Spectrum Disorder

David G. Amaral, Ph.D.

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Director of Research, The MIND Institute

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Autism Spectrum Disorder (ASD) now affects 1:88 children in the United States. It is a lifelong, debilitating disorder that is taxing family life, educational systems, social welfare programs and medical care. The causes of ASD remain unclear and controversies related to environmental contributions and putative treatments abound. This presentation will highlight recent evidence on a variety of biological and behavioral features of ASD.

An overarching theme will be that ASD is an incredibly heterogeneous disorder. Each affected individual demonstrates a variation in the severity of the core diagnostic features along with one or more common co-morbid conditions such as developmental delay, epilepsy, gastrointestinal distress, sleep disorders and anxiety. I will briefly describe the complex genetics of autism and spend more time on the differences in brain development associated with ASD.

Based on our analysis of nearly 300 children with ASD and typically developing comparison children, I will demonstrate that no single pattern of abnormal brain development is characteristic of ASD. Finally, I will review intriguing new data that individuals with ASD have dysregulated immune systems and that at least some cases of ASD may have an immunological etiology.