ECHO IDAHO

Autism

Understanding and Managing ADHD in Autistic Children

January 9, 2025

Travis Haase, LCPC, St. Luke's Children's Hospital, Boise

Dawn Orchard, DNP, APRN, CPNP-PC, PMHS St Luke's Children's Developmental and Behavioral Pediatrics

University of Idaho
School of Health and Medical Professions

Project ECHO

Objectives

- Review attention deficit hyperactivity disorder in children, with particular focus on those with autism spectrum disorders
- Differentiate the symptoms of autism from the symptoms of ADHD
- Review appropriate treatments
- Discuss the role of medication in the management of ADHD

What is ADHD?

- ADHD is characterized by a pattern of behavior, present in multiple settings (e.g., school and home), that can result in performance issues in social, educational, or work settings.
- Symptoms of inattention and hyperactivity/impulsivity
  - Example: Failure to pay close attention to details, difficulty organizing tasks and activities, excessive talking, fidgeting, or an inability to remain seated etc.
- Children (under age 17 years) must have 6 symptoms from each group of symptoms
- Older adolescents and adults (over age 17 years) must have five symptoms
- Several from both group of symptoms must be present prior to age 12 years
  - Research published since 1994 that found no clinical differences between children identified by 7 years versus later in terms of course, severity, outcome, or treatment response.
- ADHD symptoms must not occur exclusively during the course of schizophrenia or another psychotic disorder and must not be better explained by another mental disorder, such as a depressive or bipolar disorder, anxiety disorder, dissociative disorder, personality disorder, or substance intoxication or withdrawal.

ADHD and Autism

- DSM-V has no exclusion criteria for people with autism spectrum disorder
- Why the exclusion criterion in DSM-IV?
  - ASD is the more severe disorder and so should be primarily diagnosed
  - Fear that autism would be under-diagnosed.
  - Autism-related inattentiveness could be confused with ADHD
    - Children who could benefit from autism therapies might not receive treatment
- ADHD
  - Difficulty engaging attention
  - Difficulty staying on task
- Autism
  - Difficulty shifting attention away from the narrow range of interests
  - Repetitive motor stereotypies or anxiety/agitation from environmental stimuli

Are people with autism more likely to have ADHD?

- At least 40% of children with ASD have ADHD
  - Including preschool children
  - Aggressive/oppositionality more common in children with hyperactive/combined ADHD
  - More impaired ASD children were more likely to have combined/inattentive ADHD
- Approximately one third of ADHD children have autistic traits

Murray MJ (2010) Curr Psych Reports

Evaluating a child with autism and ADHD

- **Screen**
  - VANDERBILT scales
    - Parent, Teacher, Other Caregivers
    - 40-55 items, mostly scored 0-3
      https://www.nichq.org/resource/nichq-vanderbilt-assessment-scales
- **Assess**
  - Clinical interview for symptoms – patient and parent
    - Symptoms of hyperactivity, impulsivity and inattention
    - How long for and how much of the time?
    - Is it excessive?
    - Is it controllable?
    - What other symptoms?
      - Anxiety
      - Oppositionality
      - Behavioral disorders
    - Don't forget to assess for depression, suicidality and psychosis

Evaluating a child with autism and ADHD (continued)

- **Observe**
  - Restlessness, hyperactivity, impulsivity, inattention etc.
  - Symptoms of anxiety and oppositionality
- **Settings**
  - Two or more Settings
  - Parents, School, other professionals

Interventions

- Refer for further evaluation/assessment
- Support a safe environment
  - Family – water safety
  - School – social supports
  - Neighborhood – supervision and structure
- Optimize interventions
  - Parent Support and Psychoeducation
  - ABA/Behavioral Parent Training RUBI/HI/BI
  - Educational interventions, SLT, OT/PT etc.
- Refer for cognitive/behavioral therapy – often focused on behavioral problems/anxiety/social issues/depression
- Parent Management Treatment/Parent Child Interaction Therapy (2-7 y.o.)
- Don’t forget to refer/treat other family members

Using medications in children with ASD

- Rarely (if ever yet!) to treat the core symptoms of ASD
- To treat a comorbid condition
- Autism Speaks
  - Autism and Medication: Safe and Careful Use
  - Medication Decision Aid

Stimulants

In well characterized research samples

- Fewer (50%) respond than non – ASD children (70%)
- Response not as robust as in non – ASD children
- Benefits are sustained
- Hyperactivity/impulsivity improves more than inattention
- Stereotypies do not worsen
- Social communication skills and self regulation may improve
- Side effects
  - Sleep problems
  - G/I symptoms
  - Tics
  - Increased irritability and agitation (20% discontinuation)

Cardiovascular Risk

- Always get a full medical history and vital signs
- EKG and full cardiac work up if there is:
  - History of a heart murmur
  - Chest pain
  - Passing out
  - Family history of cardiac events at a young age

    OR at parent request

Stimulant therapy options

- Methylphenidate
  - Ritalin, Metadate, Concerta, Methylin, Focalin, Daytrana
- Amphetamine
  - Mixed salts (Adderall)
  - Dextroamphetamine (Dexedrine)
  - Lisdexamfetamine (Vyvanse)
- Become familiar with one or two from each group
- Patients may have side effects with one group, or one preparation from a group, and not another
- Psychopharmacology dictates side effects e.g., longer acting likely to cause sleeplessness, rapid fall off in blood levels associated with dysphoria in late afternoon etc.
- Start low, go slow – when in doubt, start with the smallest dose of methylphenidate immediate release

Alpha-2 Agonists

- Includes guanfacine (Tenex), guanfacine ER (Intuniv), clonidine (Catapres), clonidine ER (Kapvay)
- Studies show improvement in children with ADHD and ASD
  - Guanfacine fewer side effects than clonidine
  - Hyperactivity and impulsivity improve more than inattention
  - Improvements also noted in irritability, explosiveness, stereotypies and social interaction
- Side effects
  - Sedation and sleep problems
  - Irritability (not seen in typically developing children)
  - Minimal blood pressure/pulse changes

SNRIs

- Used to address inattention symptoms

Atomoxetine (Straterra)

- Around 40% appear to respond
- Limited data
  - Irritability identified as a side effect leading to discontinuation
- Takes longer to see effect, must be swallowed whole
- Higher doses often required to improve attentiveness

Viloxazine (Qelbree)

- Newer to the market, brand name only
- Shares similar risk of side effects as atomoxetine

Beware!

- Higher rates of irritability and agitation in response to all medication interventions
- Common comorbidities include anxiety (stimulants may worsen anxiety) and oppositional behavior
- Diagnosis is typically more difficult in patients with ASD
- Children with ASD commonly receive multiple psychotropic medications; hence higher risk of side effects, including more serious events
  - Start low, go slow
  - Change one medication at a time
  - Be patient
  - Discontinue/wean at regular intervals to establish continuing need
  - Be prepared to try an ineffective medication again (at a later date)