

Update: Asperger's Disorder

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Objectives

- Provide introduction to Aspergers disorder
- Medical update
- Forum for further discussion

Diagnosis of Asperger's Disorder

- Hans Asperger 1944
 - 4 boys with difficulties relating to peers
 - Fritz V.
- Lorna Wing 1981
 - 34 cases aged 5 to 35 years with no imaginative play and speech differences

DSM-IV criteria for Asperger's Disorder

- Impaired social interaction, with at least two of the below:
 - marked impairment in communication by nonverbal behaviors such as eye contact, facial expression, body posture
 - failure to develop appropriate peer relationships
 - lack of spontaneous sharing of enjoyments and interests with others
 - lack of social or emotional interaction

DSM-IV criteria for Asperger's Disorder

- Restricted, repetitive, and stereotypical behaviors and interests with at least one of the below:
 - intense and focused preoccupation with unusual, restricted interests
 - rituals and routines which are inflexible and non-functional
 - motor mannerisms which are unusual and repetitive such as hand-flapping, dances, etc.
 - persistent preoccupation with parts of objects

DSM-IV criteria for Asperger's Disorder

- significant impairment in important areas of function
- no overall delay in language
- no significant delay in cognitive development, (mental retardation), or in adaptive skills
- criteria are not met for autism or schizophrenia

Diagnostic problems

- How is Asperger's Disorder different from autism?
 - continuum of social impairment
 - SRS scale
 - language
 - higher verbal IQ and increased fixated interests
 - May have onset after 3 years of age

DSM-5

- replaces categorical model with dimensional approach
- replaces Aspergers disorder and pervasive developmental disorder with autistic spectrum disorder
 - social/communications development
 - core feature with continuous distribution in population
 - Where's the cut-off?
 - fixated interests/repetitive behaviors set

DSM-5

- Social Communication Disorder
 - impaired pragmatic use of language
 - impaired social use of verbal and nonverbal communication
 - is this mild autism?

Clinical features of Asperger's Disorder

- impaired social interaction
 - one-sided, less interactive
 - awareness of non-verbal communication
 - impaired group play
 - poor ability to recognize and understand thoughts of others

Clinical features of Asperger's Disorder

- impaired pragmatic language
 - formality in volume, tone, rhythm of speech (prosody)
 - verbosity and tangential (lectures)
- restricted and repetitive interests
 - found in 82% of cases with Aspergers
 - animals, science, technology
 - dominates social activities

Clinical features of Asperger's Disorder

- resistance to change
 - schedules, habits, order
- sensory processing dysfunction
 - sound, smells, touch, heat
- impairments associated with social impairment -Hilton 2010

Comorbid conditions seen in Aspergers Disorder

- Depression
- Anxiety
- Seizures
- Sleeping Disorders
- ADHD
- oppositional defiant disorder
- Overall rate of psychiatric conditions 74%

Asperger's disorder and depression

- Up to 30% of children with ASD have depression
 - Changes in sleep and appetite
 - Changes in core autistic symptoms
 - Irritability or aggression
 - Self-injurious behavior, suicidal ideation

Asperger's disorder and anxiety

- Seen in 43% to 84% of children with autism
- Anxiety symptoms may be more common in Asperger's disorder
- Link to sensory hypersensitivity

Epidemiology

- prevalence of Aspergers est. 2.6 per 10,000 as of 2003
- estimated prevalence of 2.6% of autistic spectrum disorders in recent South Korea study, Kim 2011
- Family risk of autism, Ozonoff 2011
 - 19% chance of repeat child with autism
 - 32% risk if two older siblings have autism
- male:female ratio 9:1

Etiologies of Aspergers Disorder

- Genetics

- linkage studies looking at specific genes
- in utero activation for autism, Kang 2011
 - genetic/environmental interaction

- Neuroimaging

- frontal lobe, temporal lobe, amygdala
- enlarged brains and increased neurons in prefrontal cortex in autism, Courchesne 2011

Etiologies of Aspergers Disorder

- in utero maternal autoimmune attack on fetal brain proteins, Van de Water 2011
 - 9% of mothers with ASD
 - variant MET gene
- mitochondrial dysfunction, Rossignol 2011
 - seen in 5% of children with autism
 - associated with seizures and GI dysfunction
- Reduced blood antioxidant capacity

Neuropsychological findings in Asperger's disorder

- Poor theory of mind
- Executive dysfunction
- Poor central coherence
- Typically verbal IQ > performance IQ

How is the diagnosis made?

- clinical interview
- Autism Diagnostic Interview, ADI-R
- Autism Diagnostic Observation Schedule, ADOS
- Social Responsiveness Scale, SRS
- Parent scales include ASDS, CATS, ASQ

Psychological testing

- verbal, performance, and full-scale IQ
- measures of educational achievement
- measures of language
- measures of autistic symptoms
- measures of social functioning
- global child rating scales

Further evaluation

- Speech Pathology
 - language and vocabulary
 - pragmatic measures
- Occupational Therapy
 - sensory processing difficulties
 - motor tone, balance, posture

Treatment

- supportive and rehabilitative
- multi-disciplinary
- behavioral, social, educational, medical

Behavioral Therapies

- teach social rules
 - social skills groups
- teach adaptive behavior
- organizational strategies
- derived from ABA, cognitive behavioral therapy

Speech Therapy

- not just pronunciation and articulation
- pragmatics
 - social aspects of verbal and nonverbal communication

Occupational Therapy

- sensory integration
 - decreases irritability, improves flexibility
- improve tone, posture, core strength
 - improve functional attention

Educational support

- IEP and 504 plan
 - awareness of psychological testing
 - step-wise teaching approaches
 - smaller classes with more 1:1 help
 - opportunities for social integration
 - increased time and prompting

Cognitive-behavioral treatment

- Studied for treatment of anxiety and depression in ASD
 - Group therapy
 - Social skills elements
 - Goal to reduce fixated interests
 - Parent training

Pharmacotherapy

- core symptoms vs target symptoms
- target symptoms
 - aggression, self-injurious behaviors
 - hyperactivity
 - mood or anxiety symptoms

atypical antipsychotics

- risperidone (risperdal) and aripiprazole (abilify) are FDA approved for irritability and aggression in autistic disorders
- block dopamine
- associated with weight increases, lipid metabolism, sedation, movement abnormalities, hormonal changes
- require careful monitoring

psychostimulants

- FDA approved for treatment of Attention-Deficit/Hyperactivity Disorder, ADHD
- lower response rates and higher side effects in autistic spectrum
- multiple choices in short vs. long term effects but only two different chemicals
- monitor weight, growth, sleep

selective serotonin reuptake inhibitors, SSRI

- widely used for anxiety and depression in autistic children
- limited display of effectiveness
- high incidence of side effects, (King 2009)
 - activation, stereotypical movements, impulsiveness

other medications

- guanfacine (tenex, intuniv)
- atomoxetine (strattera)
- anticonvulsants

Parental support

- Autism Speaks
- parent support groups, FEAT
- louisville.edu/education/kyautismtraining/resources/family-guide
- Asperger's Syndrome, Guide for Parents,
Tony Attwood
- A Parent's Guide to Asperger's Syndrome,
Ozonoff

Social Skills Groups at University of Louisville Autism Center: STAR

- Eureka Group for those with ASD between ages of 12 to 18
 - includes focus on depression and anxiety
- Middle school and elementary ages
 - targets initiations, emotional regulation, problem solving
- Early Childhood
 - targets social interactions and parent training
- Intensive summer social skills groups

Research opportunities at University of Louisville

- rTMS
- Prism lenses
- Face recognition

Forum

- Questions
- What do you as teachers need?
- Advocacy

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