

# Comorbid Conditions in Autism Spectrum Illness

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# Overview

- Diagnosing comorbidities in autism spectrum illnesses
- Treatment issues specific to autism spectrum illnesses
- Treatment options with emphasis on pharmacology



# Autism and Comorbidity

- 64 % poor attention and concentration
- 36-48% hyperactive
- 43-88% morbid or unusual preoccupation
- 37% obsessions
- 16-18% compulsions or rituals
- 50-89% had stereotyped utterance
- 68-74% stereotyped movements




# Autism and Comorbidity (cont)

- 17-74% had anxiety or fears
- 9-44% irritability, agitation
- 24-43% self injury
- 8% motor or vocal tics
- 5 % seizures

# Comorbidity vs “Associated Features”

- Research on the specific relationship between these associated features and autism is sparse.
- Is it truly a comorbid illness or part of autism?
- Preoccupations, anxiety, lack of concern regarding activity, stereotypies can all appear as ADHD



# Assessing Children With Autism Spectrum Disorder and Comorbidity

- Careful history gathering
- Observations from multiple settings
- Multidisciplinary evaluation is essential
- Information on prior interventions



# Diagnostic Dilemma

- Even after careful evaluation, it may be impossible to determine if the symptoms constitute a comorbid illness
- Must establish treatment priorities



# Considerations for Treatment Priorities


- Symptoms that threaten the safety of patient, family members or others
- Symptoms that generate subjective distress for the patient
- Symptoms that are sources of adversity in the family's life
- Symptoms that jeopardize sustained education progress





# Must Characterize Symptoms

- Distribution
- Intensity
- Onset: Time and location
- Duration
- Ameliorating Factors
- Aggravating Factors



# Treatment Issues in Autism Spectrum Illnesses

- Building relationships and gaining trust can be difficult
- Many of the difficulties are more distressing for the people around the patients than the patient themselves
- The patient may have trouble identifying their own internal mood state



# Treatment Issues (cont)

- Patient difficulty in understanding people's intentions, wishes, and needs
- Weaknesses in ability to observe sequence of events and logical responses; flawed sense of proportion, highly concrete
- Patients are often rigid and inflexible with treatment interventions



# Treatment Strategies for Pharmacologic Intervention

- Educational and behavioral supports are the mainstays of treatment
- Pharmacologic treatments are available and significantly beneficial
- It is essential to integrate behavioral and pharmacologic treatments
- Focus on Target Symptoms vs Diagnosis



# Realistic Expectations Must be Set

- Expectation that symptoms remit more quickly with pharmacologic treatment over behavioral treatments
- Expectation that response will be more complete with pharmacologic treatments
- “magic bullets”



# Must Optimize Environment

- Evaluate school setting
- Work with caregivers on home environment
- Pharmacologic strategies ineffective in unsupportive and inadequate environments



# Parental Collaboration is Essential

- Monitor patient and provide information to provider
- Administer medication
- Observe side effects
- Note emotional and behavioral effects
- Collaborate their information with school



# Focus on Symptom Clusters


- Most of the core symptoms are likely to remain
- Must focus on specific measurable symptoms
- The clinician's goal is a reduction in the specific symptoms that interfere with functioning
- Unlikely that medications will improve skills





# Side Effects

- Side effects are more likely for all medicines used in autism spectrum disorders; greater variety and rate due to atypical sensory world
- May find even minor side effects impossible to tolerate
- They may be less likely to report side effects
- Highly concrete patients may need to be asked about specific side effects



# Medication Indications in Autism Spectrum Illnesses

- No medication influences core pragmatic social skill
- Absence of high quality valid studies
- Absence of studies in autism with comorbid conditions (Almost all treatment studies with medication in childhood disorders exclude autism spectrum illnesses)



# Target Symptoms for Medications

- Hyperactivity and Attention Problems
- Impulsivity
- Anxiety including Social Anxiety
- Obsessive-compulsive symptoms
- Tics
- Depression



# Medication Target Symptoms (Cont.)

- Stereotypies
- Mood Swings
- Agitation
- Aggression
- Self Injury
- Insomnia



# Trends in Medication Use

- In one study 55% of Autistic individuals were taking a psychotropic medication
- 29.3% were on two or more medications
- Antidepressants were most common 32.1%
- Stimulants next most common 20.2%
- Followed by neuroleptics 16.5%



# Stimulant Medications

- Useful for hyperactivity, attention, and impulsivity
- 49% response rate (lower than children without autism 60%)
- 18% had intolerable side effects (much higher than children without autism)
- Side effects more common in autism include irritability, stereotypy, and self injury



# Atomoxetine

- 43% response rate for ADHD symptoms
- Heterogeneous response with some doing quite well
- Less serious adverse side effects such as irritability
- Stomach upset was most common side effect



# Alpha II Agonists (Clonidine, Tenex, Intuniv)

- Several small studies showed significant improvement over placebo in hyperactivity
- Sedation is major side effect with clonidine
- Less irritability than stimulants
- Clonidine can be helpful at night for sleep



# Neuroleptics

- Risperidone (Risperdal), quetiapine (Seroquel), olanzapine (Zyprexa), aripiprazole (Abilify)
- Used for tics, mood swings, stereotypies, aggression, self injury, obsessions
- All have potential for movement disorders as long term side effects

# Risperidone

- FDA approved for “treatment of irritability associated with autistic disorder in children and adolescents, including symptoms of aggression toward others, deliberate self-injuriousness, temper tantrums and quickly changing moods.”
- Studies also showed improvement in stereotypic behaviors and hyperactivity
- Lack of clear benefit of core symptoms



# Risperidone

- Side effects include weight gain, increased appetite, fatigue, drooling, tremor, constipation, increased prolactin
- Authors of RUPP study concluded that “risperidone should be reserved for treatment of moderate-to-severe behavioral problems associated with autism



# Aripiprazole (Abilify)

- FDA approved for irritability associated with autism
- Weight gain, fatigue, restlessness can be side effects



# Serotonin Reuptake Inhibitors

- Sertraline, fluoxetine, citalopram, etc
- Helpful in depression, anxieties, obsessive-compulsive behavior, anger
- Can be activating and disinhibiting



# Mood Stabilizers

- Valproic acid (Depakote), carbamazepine (Tegretol), Lithium etc
- Used for mood swings, self injury, aggression



# Melatonin

- Supplement used for sleep



# Conclusions

- Paucity of studies in autism spectrum disorders and comorbidity making diagnoses quite difficult
- Behavioral interventions are first line
- Must have clear, realistic, measurable target symptoms
- Lower response rate and more side effects with medication management in autism spectrum disorders



# Sources

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