Perspectives on psychiatric treatment of autism spectrum disorder

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• Goal of integrated approach to care

• Multidisciplinary team
  • Neurology
  • Speech & language therapy
  • Behavioral therapy
  • Psychology
  • Developmental pediatrics
  • Psychiatry
Seattle Children’s Autism Center

• Featuring:
  Family resources and support team
  Integration with research teams / projects

• Coming soon:
  Adult autism transitional services
Phenomenology of ASD

Core Symptoms:

- Social / communication deficits
- Restricted, repetitive interests or behaviors
Are core symptoms of ASD appropriate targets for medication treatment?

• NO, core symptoms generally are NOT good targets for use of psychiatric medications

• Our understanding of neurobiological causes of autism is still quite LIMITED

• Even with better understanding, brain development extraordinarily complex
Associated Symptoms

- Attention/hyperactivity problems
- SIB, aggression, tantrums
- Depressed or unstable mood
- Anxiety
- Insomnia
- Obsessive-compulsive or repetitive behaviors
Decision to use consult a psychiatrist

- Are target symptoms present that may be amenable to meds?
- Have non-medication options been tried?
- Severity of symptoms and their effect on functioning?
- Have previous trials with meds been ineffective for whatever reason? Worth trying others?
Psychiatric evaluation

• Identification of question for consult

• Gathering of history from appropriate sources
  • parents
  • patient
  • clinicians
  • teachers
• Psychiatric and medical history
• Social and educational history

• Clinical formulation
• Decision-making with patient, family, and clinicians
Strategy for use of meds

- Clearly identify target symptoms that the patient, family, and school can monitor
- Discuss various options in choosing medication class
  - Likelihood of effectiveness
  - Possible side effects
- Keep in mind higher incidence of SE’s, lower incidence of effectiveness (compared to pts without autism)
Strategy for use of meds

- Get the patient and family on board
- Generally change one thing at a time
- Start low, go slow
- Use med for an appropriate duration before abandoning
- If one med in a class doesn’t work, try another in same class
- Consider preparation of meds
Effects on brain development
Medication Classes

- Antidepressants
- Antipsychotics
- Alpha-2 adrenergic agonists
- Stimulants
- Mood stabilizers
- Other agents
Michael, age 7 years old

- Diagnosed with ASD
- Lifelong concerns:
  - anxiety
  - mood dysregulation
  - depression
  - aggression (younger brother, parents)
  - hyperactivity
  - oppositionality
- Worsening:
  - above symptoms over past year
  - grandiosity (‘I’m in charge here!’)
Michael, age 7 years old

- Past therapies
  - OT
  - Homeopathic medicines
  - HANDLE Institute
  - DAN protocol
  - Individual psychotherapy just started
  - Psychiatric medications

- Testing:
  - Full-scale IQ 87
  - Processing speed 70
Michael, age 7 years old

- Past medication therapies
  - risperidone
  - fluoxetine
  - bupropion
  - atomoxetine, Focalin, Adderall
  - fluvoxamine
Antidepressants

- SSRI’s
- SNRI’s
- Trazodone, bupropion, mirtazapine
SSRI’s

- Fluoxetine (Prozac)
- Sertraline (Zoloft)
- Citalopram (Celexa)
- Escitalopram (Lexapro)
- Fluvoxamine (Luvox)
SSRI’s

- Target symptoms
  - depressed mood
  - anxiety
  - irritability
  - rigidity, repetitive behaviors
SSRI’s

- Evidence of effectiveness?
  - fluoxetine
  - citalopram
SSRI’s

- Side effects
  - nuisance SE’s (headache, stomachache, nausea, dizziness)
  - sleep disturbances (incl. dreams)
  - anxiety
  - irritability, agitation, manic sx
  - SIB, suicidality
Other antidepressants

- trazodone
- venlafaxine, duloxetine
- mirtazapine
Antipsychotics

- risperidone (Risperdal)
- aripiprazole (Abilify)
- quetiapine (Seroquel)
- ziprasidone (Geodon)
- olanzapine (Zyprexa, Zydis)
- lurasidone (Latuda)
- older meds -- Haldol, etc.
Antipsychotics

- Target symptoms:
  - psychosis generally NOT present
  - aggression, SIB
  - severe agitation, irritability
  - anxiety
  - stereotyped, repetitive behaviors or speech
Antipsychotics

- Evidence of effectiveness
  - haloperidol (Haldol)
  - risperidone
  - aripiprazole
Antipsychotics

- Side effects
  - sedation
  - increase in appetite and weight
  - metabolic syndrome (chol, DM)
  - extrapyramidal symptoms
  - anticholinergic symptoms
  - tardive dyskinesia
  - neuroleptic malignant syndrome
Alpha-2 adrenergic agonists

- Clonidine
- Guanfacine (Tenex or Intuniv)
Alpha-2 adrenergic agonists

- Target symptoms:
  - hyperactivity
  - impulsivity
  - insomnia
  - aggression, SIB
  - irritability
Alpha-2 adrenergic agonists

- Side effects:
  - somnolence
  - fatigue
  - irritability
  - hypotension
  - caution with stimulants
Stimulants

- Methylphenidate (Ritalin)
- Dextroamphetamine (Dexedrine)
- mixed amphetamine salts (Adderall)
Stimulants

- longer acting formulations
  - Concerta
  - Metadate CD
  - Focalin XR
  - Adderall XR
  - Vyvanse
  - Daytrana (patch)
Stimulants

- Target symptoms:
  - inattention
  - hyperactivity
  - impulsivity
  - possible use: for increased appetite when using antipsychotics
Stimulants

• Side effects:
  – loss of appetite
  – insomnia
  – headache, stomachache
  – irritability
  – anxiety
  – tics
  – height suppression
Stimulants

- Side effects:
  - Cardiovascular concerns:
    - EKG?
    - Effects on blood pressure
Atomoxetine (Strattera)

- Non-stimulant approved for ADHD
- As effective as stimulants??
- SE’s:
  - Sedation
  - Gastrointestinal upset
Mood stabilizers

- Lithium
- Valproate (Depakote)
- Carbamazepine (Tegretol)
- Lamotrigine (Lamictal)
Mood stabilizers

- Target symptoms:
  - manic / depressive sx
  - seizures
  - irritability / mood lability
  - impulsivity
  - aggression, SIB
Mood stabilizers

- Side effects:
  - lithium
  - valproate
  - carbamazepine
  - lamotrigine
Other agents

- Buspirone
- Propranolol
- Amantadine
- Oxytocin
Michael, age 7 years old

- Current therapeutic course
  - severe disruption in family and school life

1. Discontinued fluvoxamine (concerns about bipolar)
2. Tried aripiprazole in place of risperidone (because of severe weight gain) → ineffective
3. Tried valproate (ongoing concerns about bipolar) → severe agitation, GI complaints. Led to 2 ER visits
4. In ER, tried chlorpromazine and then lorazepam
5. Then: lamotrigine → didn’t work well
6. Then tried guanfacine, which reduced agitation!
Summary

• Take home messages:
  • Usually no simple solutions
  • Multidisciplinary approach is the norm
  • Co-morbidity is the norm
  • Track target symptoms to assess effectiveness
  • Don’t give up!