#### **Clinical Case Studies**

Christopher J. McDougle, MD Director, Lurie Center for Autism Professor of Psychiatry and Pediatrics Massachusetts General Hospital and MassGeneral Hospital for Children Nancy Lurie Marks Professor Harvard Medical School

- I have no relevant financial relationship with the manufacturers of any commercial products and/or providers of commercial services discussed in this CME activity.
- Neither I nor any member of my immediate family has a financial relationship or interest with any proprietary entity producing health care goods or services related to the content of this CME activity.
- My content will include reference to commercial products; however, generic and alternative products will be discussed whenever possible.
- I do not intend to discuss any unapproved or investigative use of commercial products or devices.

## Case # 1 - 13 year old male DSM-IV-TR diagnostic criteria

- Axis I: Autistic disorder
- Axis II: Severe mental retardation
- Axis III:
  - Breech presentation
  - Jaundice at birth
  - Frequent ear infections
  - RSV and pneumonia at 3 months
  - RSV bronchiolitis at 8 months
  - Urinary tract infection at 3 years
  - Ear tubes
  - Seizure disorder

## DSM-IV-TR diagnostic criteria (Cont'd)

- Axis IV: Residential placement away from nuclear family
- Axis V: Current GAF=35. Highest GAF in the past year=35

### **Current Symptoms**

- Aggression towards others
- Patient will hit, kick, bite, pinch and throw things at people, at least twice a week
- Frequently slams himself into the wall, bangs his head on the wall and hits his head with his fist
- Puts holes in walls and throws things
- Sleep is good
- Energy level is extremely high
- Mother believes that his mood is "anxious"

#### **Current Medications**

- Oxcarbazepine (600 mg) 1 p.o. b.i.d. for the treatment of seizures
- Oxcarbazepine (150 mg) 1 p.o. 12 noon for the treatment of seizures
- Ritalin LA (30 mg) 1 p.o. q.a.m., it is no longer working as it once did
- Zyprexa (10 mg) 1 p.o. b.i.d., it is not as effective as it was initially

### Past Psychoactive Drug Trials

- Fluoxetine made him worse
- Sertraline led to an uncertain effect
- Risperidone reportedly made him more agitated
- Seroquel made him "drunk"
- Adderall made him "mellow"
- Celexa had no effect
- Abilify led to him appearing "weird"
- Clonidine led to sedation
- Naltrexone had no effect

### 3 Targets of Treatment

- Agitation
- Anxiety
- · Help with life skills

# Case #1: Which one of the patient's current medications is most likely to be contributing to his irritability?

- 0% 1. Oxcarbazepine
- 0% 2. Methylphenidate Extended Release
- o% 3. Olanzapine
- % 4. None of the Above

## Case #1: Which medication would you add next?

- 0%
   Dextroamphetamine Salts
- 0% 2. Fluvoxamine
- <sup>0%</sup> 3. Guanfacine XR
- <sup>0%</sup> 4. Paliperidone

# Case #1: Which of the following treatments would rank the lowest these options?

<sup>0%</sup> 1. Lithium Carbonate

0% 2. ECT

o% 3. Mirtazapine

0% 4. Clozapine

## Case # 2 - 20 year old male DSM-IV TR diagnostic criteria

- Axis I: Obsessive-compulsive disorder, Autistic disorder
- Axis II: Moderate mental retardation
- Axis III: Recent grand mal seizure
- Axis IV: Limited access to social activities, disrupted educational effort due to behavioral symptoms
- Axis V: Current GAF=45, Highest GAF in past year=60

#### **Current Symptoms**

- Aggression toward others on a near daily basis
- Consists of grabbing others, such as other students or the bus driver
- Bites his wrist "all of the time"
- There is no significant property destruction or significant mood swings

### Current Symptoms (Cont'd)

- Approximately 6 months ago, pt had the onset of an intense need to order and arrange objects, such as chairs around the family kitchen table and dishes in the dishwasher
- Patient has a need to touch things repetitively
- Obsessive-compulsive symptoms are egodystonic

## Current Symptoms (Cont'd)

- No current evidence for motor or phonic tics
- Significant difficulty falling asleep
- Energy level is described as low
- His mother believes that his mood is "anxious and sad"

#### **Current Medications**

- Risperidone 2 mg p.o. in the morning,
  1 mg p.o. midday, and 1 mg at hour of sleep
- Risperidone is approximately 50% as effective now as it was initially for aggression

#### Past Psychoactive Drug Trials

- Numerous SSRI's: Celexa, Lexapro, Fluvoxamine and Sertraline have led to a significant increase in irritability
- Venlafaxine led to increased irritability
- A combination of Risperidone and an SSRI "wasn't the right balance"
- Geodon led to increased irritability

## Past Psychoactive Drug Trials (Cont'd)

- Memantine up to 15 mg per day led to increased irritability
- · Penicillin for 10 days had no effect
- Abilify up to 6 mg per day had no effect
- Mirtazapine 45 mg per day had no effect
- Lorazepam 2 mg t.i.d. had no effect

### 3 Targets of Treatments

- OCD symptoms
- Anxiety and sensory issues
- The need for prompt dependence

# Case #2: Which of the following comorbid diagnoses may we be missing?

1. Major depressive disorder

0% 2. Substance abuse disorder

0% 3. Separation anxiety disorder

<sub>0%</sub> 4. A psychotic disorder

# Case #2: Which medication would you try next?

0% 1. Duloxetine

0% 2. Bupropion

% 3. Clomipramine

% 4. Buspirone

# Case #2: If medications aren't helpful for OCD symptoms, what treatment should we try next?

1. Behavior therapy

0% 2. rTMS

0% 3. ECT

% 4. Neurofeedback

## Case # 3 - 15 year old female DSM-IV-TR diagnostic criteria

- Axis I: Autistic disorder, Generalized anxiety disorder
- Axis II: Mild to moderate mental retardation
- Axis III: History of diagnosis of mitochondrial disorder, constipation
- Axis IV: The building of an addition on the family home
- Axis V: Current GAF=45, Highest GAF in past year=45

#### **Current Symptoms**

- Aggression toward others
- This includes kicking, hitting and head butting
- · Bites her hand repetitively
- Severe repetitive questioning and demands a quick answer or agitation increases
- Only interested in people if they answer her questions
- Difficulty falling asleep
- Energy level is "okay"

#### **Current Medications**

- Risperidone 1 mg p.o. q.a.m. Higher dose resulted in abnormal facial movements
- L-carnitine 500 mg p.o. b.i.d.
- Clonazepam 0.5 mg on a p.r.n. basis

### Past Psychoactive Drug Trials

- Sertraline and Lexapro made her more irritable
- Seroquel made her more irritable
- Clonidine, Kapvay, Guanfacine and Intuniv led to crying
- Buspirone led to rigidity and dystonia
- · Carbamazepine had minimal effect
- · Topiramate was ineffective
- Divalproex led to insomnia and was ineffective
- Dextroamphetamine and Ritalin were not effective
- Abilify caused "sleep issues"
- Mirtazapine led to increased agitation

## 3 Targets of Treatment

- Anxiety
- Aggression
- To expand the patients areas of interest

## Case #3: Which comorbid medical condition should we consider?

0% 1. Ear infection

0% 2. GERD

% 3. Seizure disorder

0% 4. Appendicitis

# Case #3: What would happen if we have people simply ignore her repetitive questioning?

She would stop asking questions

<sub>0%</sub> 2. She would be depressed

3. She would run away from the family home

4. She would increase the intensity of asking questions

## Case #3: What medication should we consider next?

<sup>0%</sup> 1. Venlafaxin

<sup>0%</sup> 2. Alprazolam

0% 3. Paliperidone

4. Amitriptyline

#### **Lurie Center for Autism**

- Christopher J. McDougle, MD
- Ann Neumeyer, MD
- Timothy Buie, MD
- Susan Connors, MD
- Nora Friedman, MD
- Yamini Howe, MD
- Charles Henry, MD
- Katherine Martien, MD
- Michelle Palumbo, MD
- Laura Politte, MD
- Ron Thibert, MD
- Lisa Nowinski, PhD
- Gillian Erhabor, PhD
- Julia O'Rourke, PhD., MS



http://www.massgeneral.org/children/s ervices/treatmentprograms

(781)-860-1700

#### Acknowledgments

- National Institute of Mental Health
- Autism Speaks
- National Institute of Child Health and Human Development
- Nancy Lurie Marks Family Foundation
- The Robert and Donna Landreth Fund

Questions?

#### **LURIE CENTER FOR AUTISM**

Christopher J. McDougle, M.D.

CMCDOUGLE@PARTNERS.ORG

(781) 860-1700