Cutting Edge Psychopharmacology (Classical & Holistic) of ASD in Neurodiverse Young Adults

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BIOGRAPHY – LANCE STEINBERG

Lance Steinberg, M.D. has taught psychopharmacology internationally using humor and emphasizing clinical relevance. As Assistant Clinical Professor at UCLA (Geffen) School of Medicine, he has taught Fellows in Child Psychiatry at Cedars-Sinai Medical Center, and has received two Golden Apple Awards for "Outstanding Teaching". His seminar, "Child Psychopharmacology," was awarded "Highest Rated Course" from 2000-2010.

Lance Steinberg graduated from Dartmouth Medical School and was designated a Rock Sleyster Scholar by the A.M.A. as one of the top ten medical school students in psychiatry for the United States. He completed a full residency in pediatrics at UCLA and Children's Hospital of Los Angeles, then a fellowship in adolescent medicine with an emphasis on medical-psychiatric interface at Stanford University Hospital and Clinics. Dr. Steinberg then trained in psychiatry at Cedars-Sinai Medical Center where he has taught advanced child psychopharmacology, CBT, and self-hypnosis for over twenty years. He has spoken on behalf of TSA, CHADD, OCDF and is a professional referral for these organizations.

Dr. Steinberg's specialties include Tics, Tourette's, OCD, ADHD, mood & anxiety disorders, Asperger's and Autism. Dr. Steinberg has offices in Calabasas, Encino, and Valencia.



ISTRESS is getting you down



Cyclic Antidepressants

SSRI selective serotonin reuptake inhibitors

Celexa

Lexapro

Prozac

Zoloft

Luvox

Cyclic Antidepressants

SNRI serotonin norepinephrine reuptake inhibitors

Effexor XR

Pristiq

Cymbalta

Fetzima

Cyclic Antidepressants

NDRI norepinephrine dopamine reuptake inhibitors

Wellbutrin

Cyclic Antidepressants

Unusual Mechanism Of Actions (MOA)

Remeron

Desyrel

Vibryd

Trintellix

Antipsychotics

TGA third generation antipsychotics

Abilify

Rexulti

SGA second generation antipsychotics

Risperdal

Fanapt

Invega

Antipsychotics

SGA second generation antipsychotics cont.

Zyprexa

Latuda

Geodon

Saphris

Clozaril

Vraylar

Antipsychotics

FGA first generation antipsychotics

Haldol

Mellaril

Orap

etc.

Stimulants

Ritalins (MPH=methylphenidates)

Focalin

Ritalin

Ritalin SR

Quillichew

Concerta

Metadate ER/CD

Ritalin LA

Methylin ????

Stimulants

Ritalins (MPH=methylphenidates) continued

Daytrana Patch

Cotempla XR-ODT

Aptensio XR

Focalin XR

Quillivant liquid

Stimulants

Dexedrines (AMP=amphetamines)

Dexedrine tablets

Zenzedi

Dexedrine Spansules

Adderall

Adderall XR

Adzenys XR-ODT

Dyanavel XR susp

Vyvanse tab/cap

Mydayis

Antianxiety Agents

Alpha Adrenergics

Intuniv

Kapvay

Beta Blockers

Inderal

Tenormin

2 Core Domains

Social Communication/Social Interaction

Restrictive Repetitive Patterns of Behavior, Interests, Activities

Associated Behavioral Features

ADHD

Irritability (aggression, self-injury, tantrums)

Anxiety

Mood

Target Symptoms in Psychopharmacology

- Social Impairment
- Restrictive Repetitive Behaviors
- ADHD
- Irritability (aggression, self injurious behavior, tantrum)
- Anxiety
- Mood

Pearls of Psychopharmacotherapy in Non-neurotypical Individuals

- Scientific data from double blind studies scant
- Adult approaches extrapolated from pediatrics
- Response to medications "not as robust"

Pearls continued

- Always start low, go slow
- Adverse side effects often start at lower doses
- After puberty, response to medicine may totally change

Target Sx/Sy: Social Impairment

Oxytocin Nasal Spray

- Improved emotional recognition in a small trial, then no help in larger trial
- Improved social interaction and communication in small trial

Target Sx/Sy: Restrictive Repetitive Behaviors

- <u>Fluoxetine (Prozac)</u> low dose, several studies, very + in adults
- <u>Fluvoxamine (Luvox)</u> help in one small study

<u>Target Sx/Sy: Restrictive Repetitive Behaviors(cont'd)</u>

- Risperidone (Risperdal)
- Aripiprazole (Abilify)

More serious medicines than SSRIs, but research data not clear on patient irritability, OCD, etc.

Target Sx/Sy: ADHD

MPH=methylphenidate (Ritalin)
 Helped hyperactivity, attention, self regulation

Target Sx/Sy: ADHD

<u>ATX=atomoxetine</u> (Strattera)
 Helped hyperactivity, and moderate help with attention

Target Sx/Sy: ADHD

<u>Guanfacine ER</u> (Tenex ER, Intuniv)
 Significant help with hyperactivity

Target Sx/Sy: ADHD

Clonidine ER (Catapress ER, Kapvay)
 Moderate help with hyperactivity

Target Sx/Sy: ADHD

What is done clinically in ASD

I/H – often Intuniv or Kapvay > MPH or AMP > ATX

Attention – often MPH or AMP or ATX > Intuniv or Kapvay

Target Sx/Sy: Irritability (aggression, self-injury, tantrums)

Risperidone (Risperdal) – multiple studies

Risperidone Adjuncts

Amantadine – small study

Riluzole – small study

Buspirone – small study

Celecoxib – small study

Memantine – very mixed data

Target Sx/Sy: Irritability (aggression, self-injury, tantrums)

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Aripiprazole (Abilify) – several studies
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Paliperidone (Invega) – excellent small study

Olanzapine (Zyprexa) – many studies

Ziprasidone (Geodon) – several positive studies

Haloperidol (Haldol) – many studies

Target Sx/Sy: Irritability (aggression, self-injury, tantrums)

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Escitalopram (Lexapro) – excellent, small study
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Mirtazapine (Remeron) – excellent, small study

Venlafaxine (Effexor) – excellent, small study

Oxcarbazepine (Trileptal) – one small study

NAC (N-acetylcysteine) – small studies

Target Sx/Sy: Anxiety

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Sertraline (Zoloft) – small study, great for environmental transitions
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Buspirone (Buspar) – small study

Mirtazapine (Remeron) – small study, low to medium dose

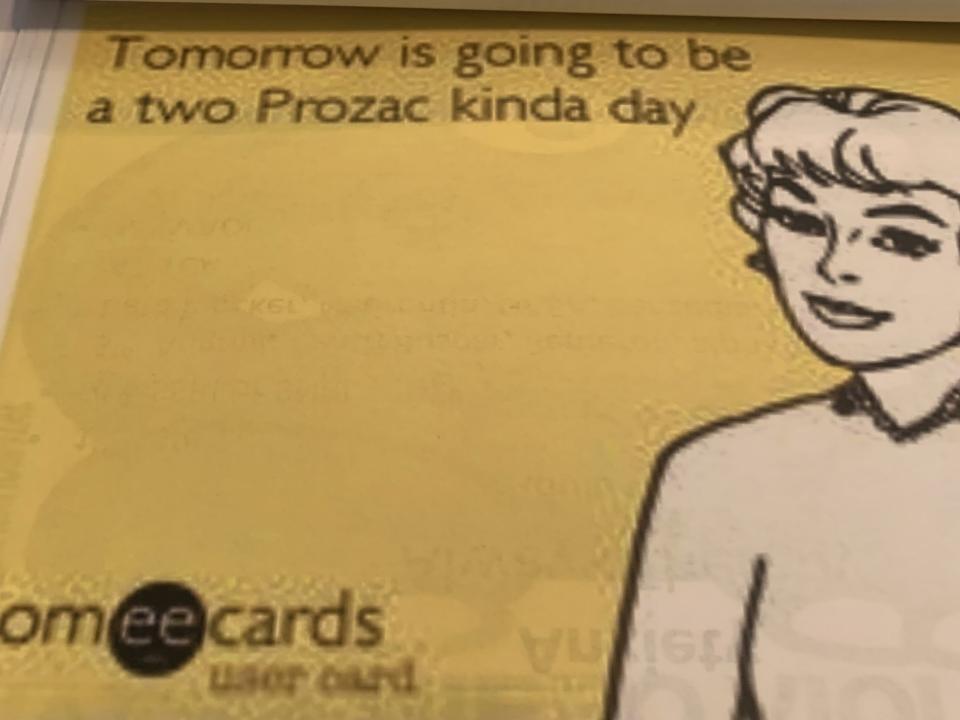
Target Sx/Sy: Mood

No specific studies

Extrapolation from neurotypical data

Follow the "Pearls" presented earlier in lecture





3 Excellent Academic Reviews

Autism Spectrum Disorder: Consensus Guidelines on Assessment, Treatment, and Research from British Association of Psychopharmacology Howes, et al Journal of Psychopharmacology Jan 2018 32(1) 3-29 Oxford, England

3 Excellent Academic Reviews (cont'd)
Psychopharmacotherapy of ASD
Christopher McDougle, M.D.
2017 Annual Meeting, American Psychiatric Association,
Master Course Update on Pediatric Psychopharmacology

Textbook of Psychopharmacology, 5th edition Schatzberg and Nemeroff editors APA Publishing Arlington, Virginia 2017