

# Child & Adolescent Psychiatry Care Coordination: Organic Disorders Presenting as Mental Illness

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# Learning Objectives

- Recognize complex psychiatric presentations in pediatric patients that warrant further medical workup
- Identify underlying medical conditions that may present in pediatric patients with an initial psychiatric complaint
- Recognize system challenges that may impede delivery of collaborative care for pediatric patients

# Background

- Many medical disorders may have a comorbid psychiatric condition
- Many medical disorders will have symptoms that mimic a psychiatric disorder
  - Autoimmune disorders
  - Limbic encephalitis
- Appear to have cognitive, mood, perception, anxiety as part of their presentation

# Background

- These symptoms often prompt initial referrals to psychiatry
- Challenge is determining which symptoms belong to psychiatry, which to another discipline and which are shared (Comorbid)
- As a result of the overlap in symptoms, there may be system challenges that impact the smooth delivery of care

# Agenda Today

- Case based presentation to highlight the learning objectives
- Suzanne Don - System Challenges
- Joanna Kowalik - Patients who present with psychiatric symptoms but requiring further medical workup
- Randall Ricardi - Discussion

# System Case

- 13yo female
- Pt x 3 yrs; initial presentation:
  - ADHD, GAD
  - Functioning in gen ed classroom
- Poor vision, LD (reading), no major developmental delays
- Fam hx: OCD, GAD, Bipolar, Crohn's, Celiac

# Clinical Progression

- 2019 – rapid onset of puberty
- December 2019 - first hospitalization d/t SI
- Spring 2020 – hair loss
- Summer 2020 – hospitalized for first manic episode
- In the following two years since, has spent more time in the hospital than at home: multiple acute stays, two attempts at residential facilities in two different states
- Pseudoseizures, foot paresthesia
- Chronic suicidal behaviors, fleeing, aggression, cognitive decline, worsening penmanship
- Inpatient staff => ASD
- Transferred from SNU last week for acute medical hospitalization – abdo pain, anorexia, weight loss

# Assessments

- Thyroid: fluctuations since spring 2020
- MRI brain/pituitary 2021: WNL
- EEG: 10/2019 - WNL  
06/2021 - generalized slowing, mild encephalopathy
- LP: 11/2021 - WNL
- Celiac: 11/2021
- Colonoscopy: 06/2022 – WNL

# Medication

- Multiple medication trials, most recently: chlorpromazine, lithium, prazosin.
- Has previously tried: atomoxetine, lisdexamfetamine, clonidine, guanfacine, sertraline, olanzapine, haloperidol, lurasidone, aripiprazole, lamotrigine, divalproex sodium
- => there has not been a medication regimen over the past two years that has aided with long-term stability

# Discussion

- Factors affecting comprehensive care:
  - piecemeal fashion of tests/assessments
  - psychiatric patient 1st, medical patient 2nd
- Existing collaborative care models:
  - kids with chronic medical illnesses
  - kids in community behavioral health systems (esp primary care)
  - tertiary care centers
- Deficit in models for child psychiatrists in small/solo private practice
- *Now what??*

## Medical Case

- 15-year-old patient with a past medical history of epilepsy, microcephaly, cerebral palsy, intellectual disability, developmental delays, and heart murmur.
- She was admitted to a hospital in August 2020 with altered mental status and loss of previously acquired skills.
- For a week prior to hospitalization, parents noticed behavioral changes (crying, irritability) and confusion (AMS). She got lost in the neighborhood. She stopped answering questions appropriately and developed mutism.

# Clinical Progression

- Diagnosed with acute encephalopathy- delirium due to another medical condition.
- Developed the following symptoms:
  - Difficulty sleeping
  - Auditory and visual hallucinations
  - Retarded/withdrawal catatonia which lasted approximately a month with no improvement with lorazepam challenge
  - Autonomic instability (hypertension and hypotension; tachycardia & tachypnea)
- Child psychiatry was consulted due to new onset of psychiatric symptoms- auditory and visual hallucinations, insomnia, emotional lability, and episodes of confusion.

## Clinical Progression (cont)

- Due to an acute onset of new psychiatric symptoms and loss of previously acquired motor skills (speech, balance, fine motor coordination, seizure) child psychiatry recommended a neurology consult. Delirium continued. Pediatric and Neurology teams recommended inpatient psychiatry.
- Child Psychiatry requested a multidisciplinary clinical conference. Child psychiatry team recommended further neuro work up including lumbar puncture with a high suspicion for autoimmune encephalitis.

## Medical Work-up

- CBC with Diff, CMP, UA, UDS – all WNL
- CSF: Glucose 54 (NL 60-80), RBC 21 (NL 0), IgG/Albumin Ratio 0.38 (NL 0.09-0.25); NMDA titers negative
- Autoimmune: Thyroid Peroxidase (TPO) Antibody 50 (NL <25)
- Immunoglobulins: IgG 3490 (NL 768-1632); Thyroglobulin Ab 77.3 (NL 0.0-4.0)
- Neuroimmune: Normetanephrine 0.95 (NLo.00-0.89); Angiotensin Convert Enzyme 15 (NL 18-101)

# Treatment

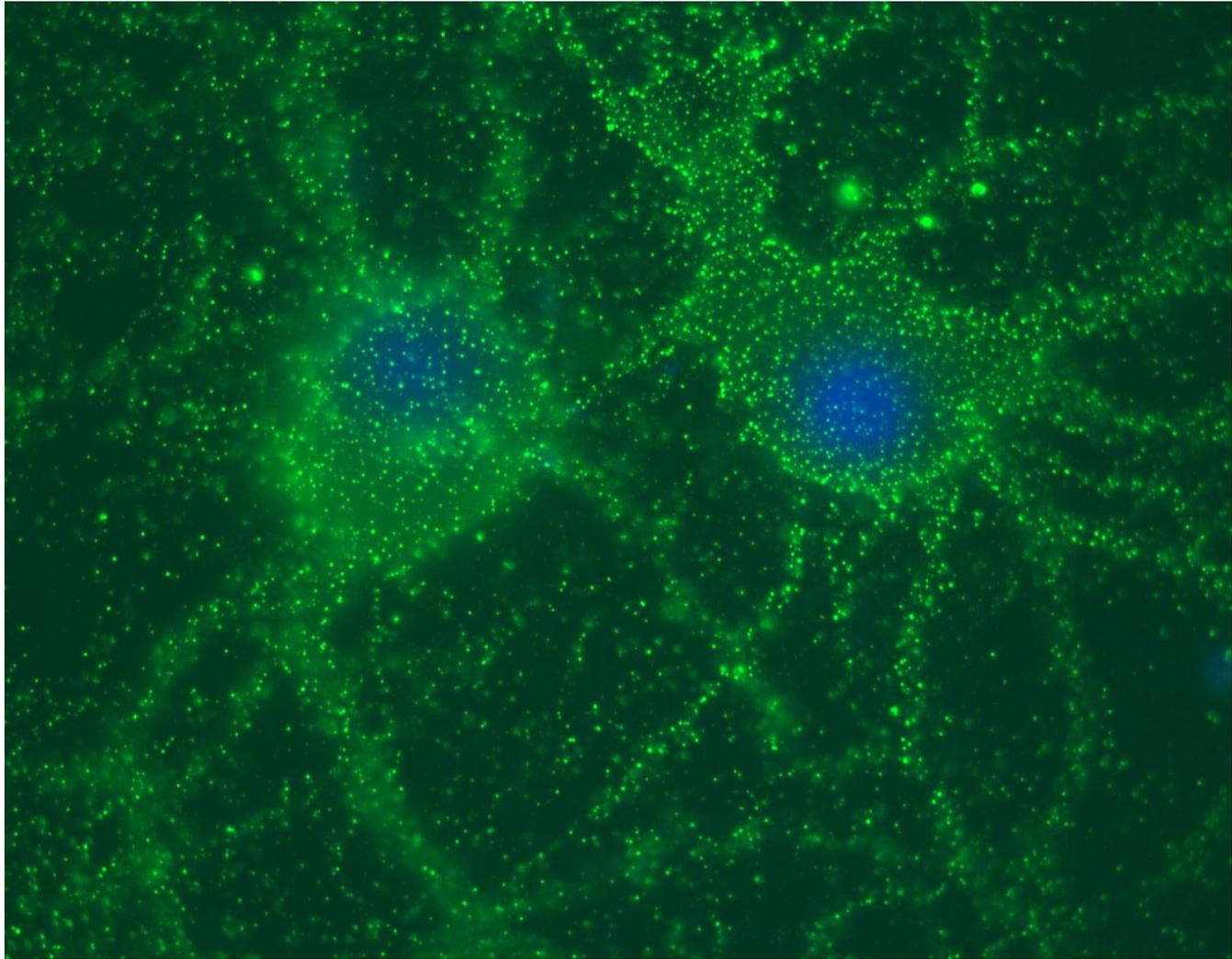
- Empirical treatment for autoimmune encephalitis started after a month of admission
- Received high dose steroids (5-day course of methylprednisone IV) and then IVIG
- Patient started improving slowly
- Never needed inpatient psychiatry after the medical stabilization
- Neurorehabilitation was recommended
- Patient continued to have auditory and visual hallucinations, insomnia, and severe mood dysregulation for approximately six months after discharge. Her psychiatric symptoms resolved after approximately 12 months with antipsychotics and neurorehabilitation

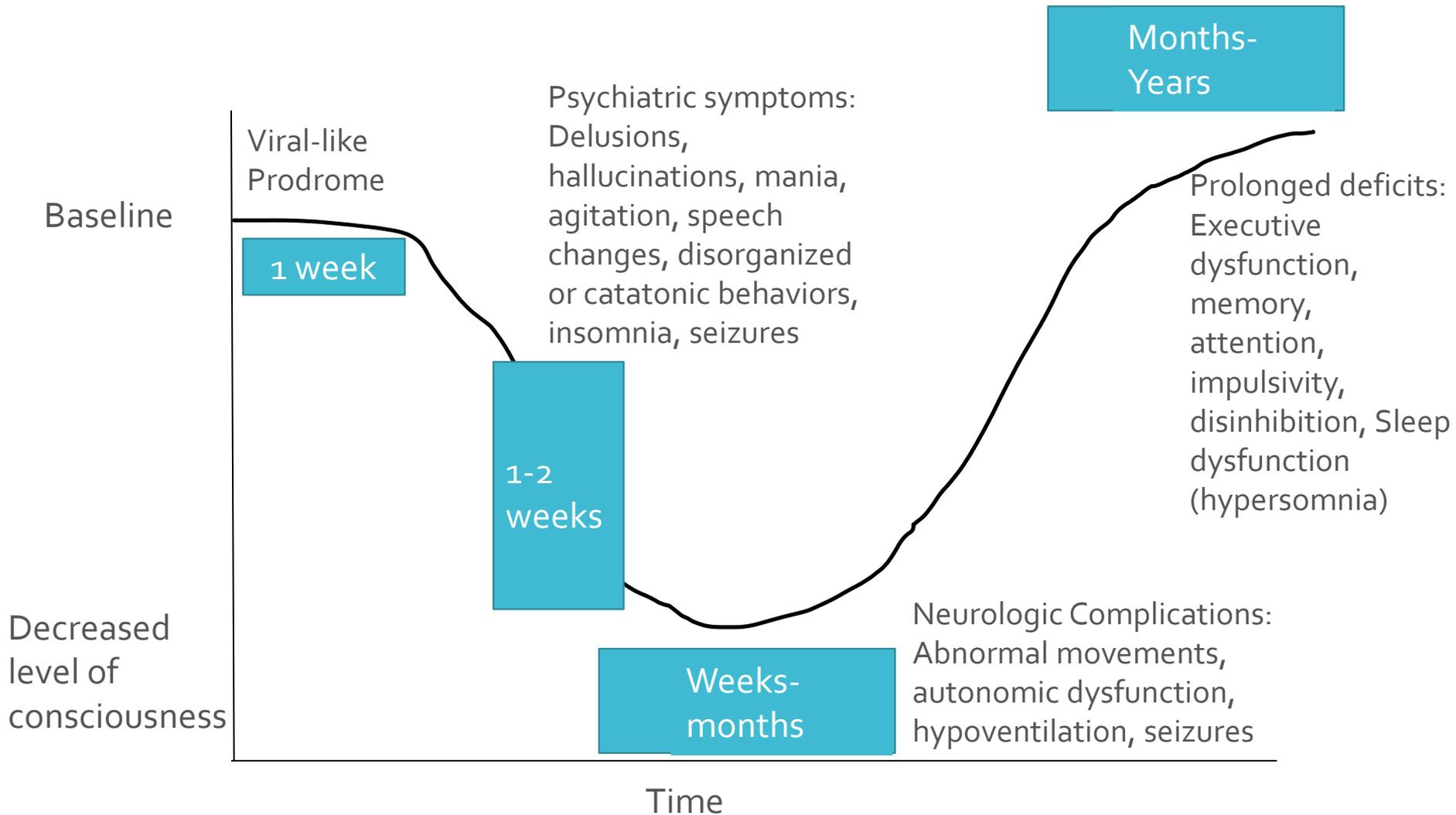
# Red Flags

- Acute onset of psychiatric symptoms
- History of infection
- Altered mental status
- Catatonia
- Periods of autonomic instability
- Some autoimmune findings

# Autoimmune Encephalitis

- Anti-NMDA receptor (NMDAR) encephalitis is a potentially devastating condition that occurs when antibodies over-stimulate excitatory NMDA receptors in the brain
- Source of antibodies can be from teratomas, thymomas and other unclear sources
- Resulting in a variety of neuropsychiatric manifestations.





# Discussion

- How do we decide that further medical workup is necessary?
  - Lack of response to psychiatric treatment
  - Sudden onset of psychiatric symptoms
  - Changing clinical profile and diagnosis
  - Delirium
  - System Challenges
  - Others?

# Discussion

- What are the academic center's challenges?
- How to better communicate and include the private practice practitioner?
- What system challenges do you think impede the delivery of integrated care?

# What Can We Do?

- Open Specialist's eye to psychiatric disorders
  - Education Grand Rounds on Psychiatric Topics
  - PCH Center for Resilience
  - Care Conferences on complex cases
- Further integration of care with primary and specialty care