Kleine-Levin Syndrome presenting as First-Episode Psychosis

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Background and Aims

Klein-Levin Syndrome (KLS)

✓Rare, idiopathic sleep disorder

✓Recurrent Episodes

Hypersomnia
-Hyperphagia
-Hypersexuality — Classical Triad
-Cognitive disfunction
-Neuropsychiatric features[2,3,4] — Nonspecific

- Mood and Affect
  Depressive/Euphoric/Flat/Irritable
- Anxiety
- Derealization/Depersonalization
- Psychotic symptoms
  Delusion/Hallucinations/
  Disorders of Self

- 12 to 24 hours/day

✓Diagnosis of Exclusion based on clinical presentation

International Classification of Sleep Disorders - Criteria

✓There is no formal established treatment protocol. Evidence of benefit:

- **IV steroids** for reducing the duration of prolonged (>30 days) episodes.
- **lithium** for reducing episode frequency in patients with frequent (>4/year) episodes. [1,3,5]
- Amantadine may be used as a prophylactic treatment and SSRIs work as symptomatic treatment.

✓We report the case of a patient with KLS who presented with a first-episode psychosis.

Case Report

First Episode

✓An 18 year-old male presented to the emergency department with a one-week history of **disorganised behaviour and psychotic symptoms** - persecutory delusion and auditory hallucinations.

✓ Blood tests - including toxicology, serology and endocrinology, head MRI and EEG were unremarkable.

✓Admitted to the inpatient psychiatry unit with a working diagnosis of **Psychosis NOS.**

- Hypersomnia, hyperphagia, depressed mood and bouts of aggressive behavior were noted, interpreted as atypical symptoms of depression.

✓He was discharged with a diagnosis of **Major Depressive Disorder.** Behavioral and sleep symptoms completely **remitted after one month**.

Second Episode

✓**Three years later**, he returned with a chief complaint of headaches, hyperphagia and hypersomnia.

-Sleep duration of 18 to 24 hours.

✓**Three episodes** of hypersomnia were registered, with **three weeks duration** separated by **one week of total remission**.

✓A diagnosis of **KLS was established**, based on:

- Recurrent episodes of excessive sleepiness accompanied by cognitive dysfunction, psychotic symptoms, hyperphagia and total remission of symptoms between episodes.

✓Presently, he is being treated with **fluoxetine 40mg/day and amantadine** as needed. A decision was made to postpone treatment with lithium due to the low episode frequency.

Discussion

Although there is no etiologic model for KLS, some hypothesis have been suggested: **underlying autoimmune and inflammatory processes,**[1,2,5] **hypothalamic abnormalities** and, in few cases, alterations in **serotonin and dopamine neurotransmission**.[4,5] The later could explain the fact that **KLS can mimic primary psychiatric disorders**, including psychosis. While mood disorders, especially depressive humor and irritability, occur in about half of the KLS crisis [5] , the **prevalence of psychotic symptoms is between 14-35%**.[5] Clinicians should be aware of KLS cardinal symptoms, as an early recognition can **prevent misdiagnosis and ensure the correct management** of this rare syndrome.

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