Intervention at the Intersection: Porencephaly, Psychosis, and Clozapine

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Introduction

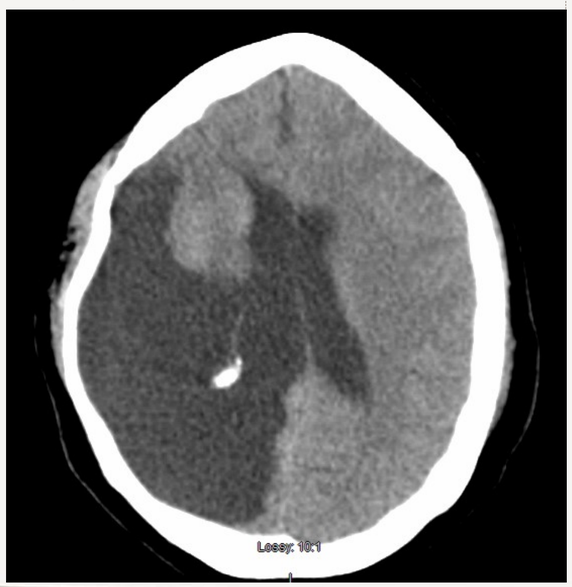
***Porencephaly*:** A fluid-filled cavity in the brain, caused by local ischemia in-utero/ hemorrhage after birth. Possible *COL4A* mutations. It is often associated with ID, CP, and epilepsy. In our patient's case it is also associated with psychosis and agitation.

***Clozapine*:** An atypical antipsychotic drug, the gold standard for treatment-refractory psychosis. There is a paucity of literature on its use among patients with ID, and no information about its use in individuals with porencephaly.

We present a case of psychosis and severe agitation in the setting of porencephaly with resultant ID treated successfully with clozapine.

Our patient's story

A 48-year-old African-American woman with cerebral palsy (CP), left-sided hemiparesis, epilepsy, and ID, who had poor insight and a Hx of violence: Biting, punching, kicking, and at one time, ripping a door off its hinges. Multiple prior trials of psychotropic medication, multiple hospitalizations



Our patient's story, ctd.

Hx: hypertension, hypothyroidism. No substance use, no significant family psychiatric history.

Labs: WNLs at admission, except for stable mild thrombocytopenia.

Meds: Quetiapine, fluphenazine, divalproex, benztropine, levatiracetam, levothyroxine, and lisinopril.

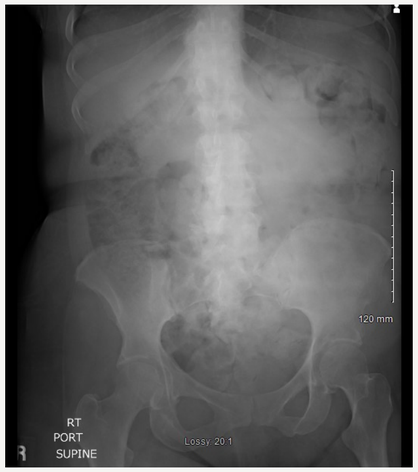
She required assistance to complete ADLs, and lived in a group home until 2 weeks ago when she moved back into the family home, sleeping in her mother's bed, around the one year anniversary of her mother's death. After the first 2 days at home: "unplugging fans, yelling, running around the house, turning the TV off and on, pacing." Seeing "ghosts" of her grandmother and mother, stating they "never left," and lived in the basement.

What role did we play?

We placed our patient on 1:1 supervision with access to music. After detailed discussion with the neurologist, EEG studies, and with careful consideration, we finally decided to start our Clozapine naïve patient on a small dose of 25 mg daily. We gently titrated this up to 150 mg BID over 17 days. We **consistently** monitored for side effects, especially: neutropenia, orthostatic hypotension, bradycardia, myocarditis, cardiomyopathy.

We continued fluphenazine, divalproex, levetiracetam. Added clonazepam. Titrated quetiapine down from 200mg QAM and 400mg QHS to 200mg QAM and 200mg QHS, to be weaned outpatient. Reduced Benztropine from 1mg to 0.5mg BID.

The week prior to discharge, we elicited a report of constipation. She required bisacodyl, enemas, manual disimpaction, and was also started on docusate, lactulose, and polyethylene glycol.



How did she respond?

She progressed from voiding and screaming in the hallway, biting and hitting staff, hallucinating angry family members in her room, and requiring multiple IM emergency medications to attending group, requiring no emergency medications, and experiencing a resolution of psychotic symptomatology.

Disposition: To a group home at her request, glad not to go back to her "grandmother's" home.

The evidence suggests that…

Complicated grief is more likely to occur in individuals with ID, and pallidotomy lesions are associated with seeing dead relatives.

Psychotic disorders are 3x more common in people with ID. More severe psychoses, negative symptoms, functional impairment, and cognitive dysfunction. An earlier age at first contact with psychiatric services, more in-patient admissions and more in-patient days. An administrative chiasm exists between services for people with ID and with psychiatric illness resulting in an underestimation of onus.

Epilepsy can also result in an increase in observable psychopathology.

What can clinicians do?

Guidelines for acute management of agitation secondary to psychosis describe verbal intervention, physical restraint, and emergency medication. However, long-term treatment depends on medication for the underlying disorder. Evidence shows that behavioral and social learning approaches to the treatment of agitation are more effective after the patient has been stabilized via psychopharmacologic intervention.

Thoughtful, evidence-based practice demands concern for overprescription of antipsychotics in ID. About half prescribed psychotropics in individuals with ID are for treatment of major psychiatric disorders, 13% for controlling agitation, and 38 % for both. The higher incidence of negative symptoms among patients with ID and psychosis indicates a likely poor response to conventional antipsychotic drugs. However, medication for a patient like ours might work differently, for instance, causing more side-effects. This can be concerning for a medication like Clozapine, which comes with a variety of side-effects, including some serious ones. That said, our unique patient with psychosis and severe agitation in the setting of porencephaly with resultant ID was successfully treated with clozapine.

Here are our recommendations:

1. Discuss with the patient and caregivers about common and serious adverse events.
2. Regularly evaluate the risk-benefit profile of medication prescribed, with particular emphasis on quality of life.
3. Advise what action should be taken in case of a serious adverse event.
4. Record all adverse events.
5. Be Remarkable!