Getting Excited about Excited Catatonia:
A Combination of CLL, Post-COVID Psychosis, and Hypoactive Delirium contributing to a Delayed Catatonic Presentation in a Geriatric Patient

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Background/Introduction

The DSM-5 indicates that a diagnosis of catatonia due to a medical condition cannot be made if delirium is present, as the two are traditionally considered mutually exclusive. However, recent literature has increasingly challenged this distinction, suggesting that **catatonia and delirium often co-occur,** particularly in cases involving prolonged hospital stays or complex medical conditions. Studies such as those by Wilson (2017) have highlighted instances where patients exhibit symptoms of both conditions simultaneously, complicating the diagnostic process.

Case

The patient is a 74-year-old female with a past medical history of anxiety, chronic lymphocytic leukemia (CLL), and a recent COVID-19 infection. She presented with delirium and confusion. After her COVID-19 infection, her family observed worsening **auditory hallucinations, agitated behavior, and paranoia**. She was diagnosed with **Post-COVID Psychiatric Disorder and CLL** at an outside hospital and was discharged on Quetiapine.

Upon admission:

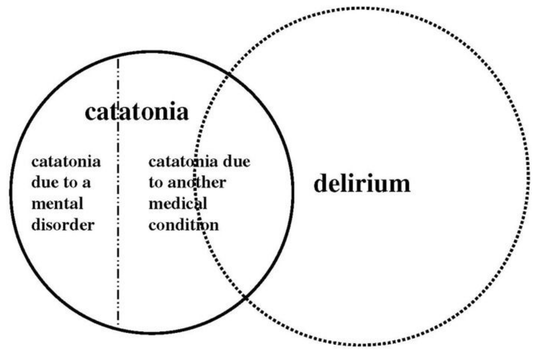
- Symptoms: Visual and auditory hallucinations, insomnia, and weight loss.
- Initial Treatment: Quetiapine and Lorazepam were used for agitation with mild symptomatic improvement.

Further integrative investigations with Neurology and Oncology did not reveal an infection or autoimmune etiology. Although leukostasis was deemed unlikely, **CLL-based delirium was considered**. High-dose steroids were initiated, with corresponding medication adjustments, including Trazodone, Valproate, and Lorazepam.
Despite mild improvement, she continued to experience delusions, paranoia, and hallucinations. Valproate was discontinued due to suspected bone marrow suppression, and Olanzapine was added. Her treatment regimen was adjusted multiple times to address fluctuating psychosis and insomnia.

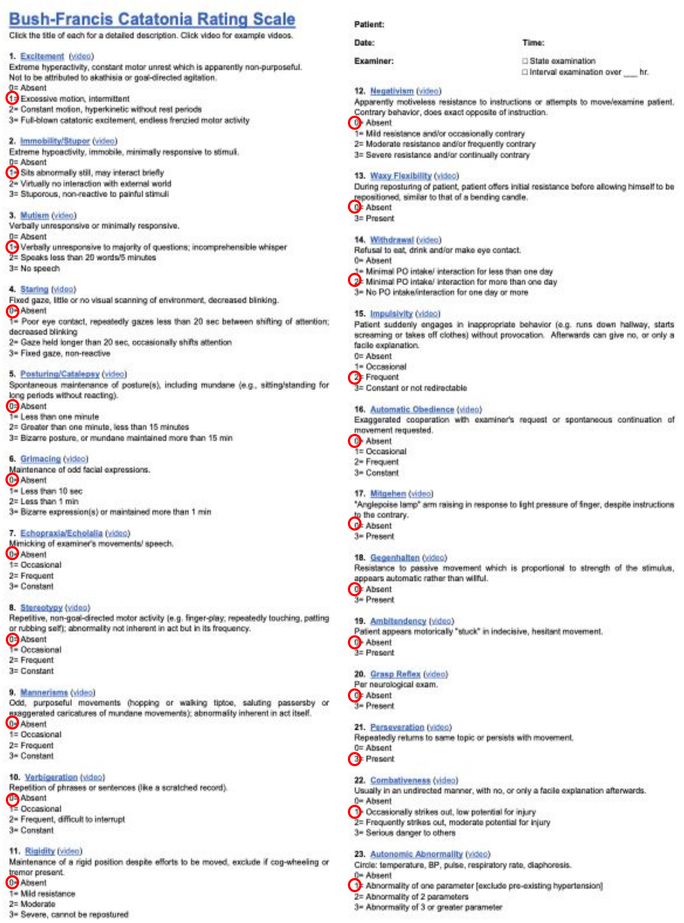
- Catatonia Diagnosis: On Day 40, she met screening **criteria for catatonia** with a BFCRS score ≥2, exhibiting withdrawal, immobility, and excitement.
- Treatment Adjustment: Olanzapine was replaced with Lorazepam, leading to further improvement.

The patient's condition improved, with decreased agitation and better engagement. She had one agitation episode, managed with Lorazepam, before **discharge on day 43 to assisted living.**

Figures



Catatonia and Delirium overlap



Bush-Francis Catatonia Rating Scale

Click the title of each for a detailed description. Click video for example videos.

1. Excitement (video)
Extreme hyperactivity, constant motor unrest which is apparently non-purposeful. Not to be attributed to akathisia or goal-directed agitation.
0= Absent
1= Excessive motion, intermittent
2= Constant motion, hyperkinetic without rest periods
3= Full-blown catatonic excitement, endless frenzied motor activity

2. Immobility/Stupor (video)
Extreme hypoactivity, immobile, minimally responsive to stimuli.
0= Absent
1= Sits abnormally still, may interact briefly
2= Virtually no interaction with external world
3= Stuporous, non-reactive to painful stimuli

3. Mutism (video)
Verbally unresponsive or minimally responsive.
0= Absent
1= Verbally unresponsive to majority of questions; incomprehensible whisper
2= Speaks less than 20 words/5 minutes
3= No speech

4. Staring (video)
Fixed gaze, little or no visual scanning of environment, decreased blinking.
0= Absent
1= Poor eye contact, repeatedly gazes less than 20 sec between shifting of attention; decreased blinking
2= Gaze held longer than 20 sec, occasionally shifts attention
3= Fixed gaze, non-reactive

5. Posturing/Catalepsy (video)
Spontaneous maintenance of posture(s), including mundane (e.g., sitting/standing for long periods without reacting).
0= Absent
1= Less than one minute
2= Greater than one minute, less than 15 minutes
3= Bizarre posture, or mundane maintained more than 15 min

6. Grimacing (video)
Maintenance of odd facial expressions.
0= Absent
1= Less than 10 sec
2= Less than 1 min
3= Bizarre expression(s) or maintained more than 1 min

7. Echopraxia/Echolalia (video)
Mimicking of examiner's movements/ speech.
0= Absent
1= Occasional
2= Frequent
3= Constant

8. Stereotypy (video)
Repetitive, non-goal-directed motor activity (e.g. finger-play; repeatedly touching, patting or rubbing self); abnormality not inherent in act but in its frequency.
0= Absent
1= Occasional
2= Frequent
3= Constant

9. Mannerisms (video)
Odd, purposeful movements (hopping or walking tiptoe, saluting passersby or exaggerated caricatures of mundane movements); abnormality inherent in act itself.
0= Absent
1= Occasional
2= Frequent
3= Constant

10. Verbigeration (video)
Repetition of phrases or sentences (like a scratched record).
0= Absent
1= Occasional
2= Frequent, difficult to interrupt
3= Constant

11. Rigidity (video)
Maintenance of a rigid position despite efforts to be moved, exclude if cog-wheeling or tremor present.
0= Absent
1= Mild resistance
2= Moderate
3= Severe, cannot be repostured

Patient:
Date: Time:
Examiner:
☐ State examination
☐ Interval examination over ___ hr.

12. Negativism (video)
Apparently motiveless resistance to instructions or attempts to move/examine patient. Contrary behavior, does exact opposite of instruction.
0= Absent
1= Mild resistance and/or occasionally contrary
2= Moderate resistance and/or frequently contrary
3= Severe resistance and/or continually contrary

13. Waxy Flexibility (video)
During reposturing of patient, patient offers initial resistance before allowing himself to be repositioned, similar to that of a bending candle.
0= Absent
3= Present

14. Withdrawal (video)
Refusal to eat, drink and/or make eye contact.
0= Absent
1= Minimal PO intake/ interaction for less than one day
2= Minimal PO intake/ interaction for more than one day
3= No PO intake/interaction for one day or more

15. Impulsivity (video)
Patient suddenly engages in inappropriate behavior (e.g. runs down hallway, starts screaming or takes off clothes) without provocation. Afterwards can give no, or only a facile explanation.
0= Absent
1= Occasional
2= Frequent
3= Constant or not redirectable

16. Automatic Obedience (video)
Exaggerated cooperation with examiner's request or spontaneous continuation of movement requested.
0= Absent
1= Occasional
2= Frequent
3= Constant

17. Mitgehen (video)
"Anglepoise lamp" arm raising in response to light pressure of finger, despite instructions to the contrary.
0= Absent
3= Present

18. Gegenhalten (video)
Resistance to passive movement which is proportional to strength of the stimulus, appears automatic rather than willful.
0= Absent
3= Present

19. Ambitendency (video)
Patient appears motorically "stuck" in indecisive, hesitant movement.
0= Absent
3= Present

20. Grasp Reflex (video)
Per neurological exam.
0= Absent
3= Present

21. Perseveration (video)
Repeatedly returns to same topic or persists with movement.
0= Absent
3= Present

22. Combativeness (video)
Usually in an undirected manner, with no, or only a facile explanation afterwards.
0= Absent
1= Occasionally strikes out, low potential for injury
2= Frequently strikes out, moderate potential for injury
3= Serious danger to others

23. Autonomic Abnormality (video)
Circle: temperature, BP, pulse, respiratory rate, diaphoresis.
0= Absent
1= Abnormality of one parameter [exclude pre-existing hypertension]
2= Abnormality of 2 parameters
3= Abnormality of 3 or greater parameter

Patient's Catatonia Rating Scale on day 40 of admission

Discussion

This patient's clinical presentation, characterized by overlapping symptoms of **psychosis, delirium, and a general decline in health**, created significant challenges in accurately diagnosing catatonia. The interplay between these conditions blurred the clinical picture, complicating the process of identifying the primary cause of her symptoms and determining the most appropriate treatment approach. **Antipsychotics, while effective in managing psychosis and delirium-related agitation, posed a significant risk due to their potential to exacerbate catatonia** (Lesko, 2022). This presented a therapeutic challenge of weighing the pros and cons. **Conversely, benzodiazepines and modified electroconvulsive therapy (ECT), which are effective treatments for catatonia, carried the risk of worsening her delirium**, further complicating her management. This balancing act required a careful and nuanced approach to her treatment, with limited options available that would not exacerbate one condition while attempting to treat another.
Given these challenges, an extensive work-up was performed to rule out other potential causes, such as autoimmune encephalopathy and CLL-related psychosis. Despite these efforts, neuropsychiatric complications from her recent **COVID-19 infection emerged as a likely contributor to her catatonic symptoms**.

Conclusion

This case was distinctive because the patient's catatonia was not diagnosed until late in her hospital stay, as she did not meet the screening criteria of a **BFCRS score ≥2** until much later. **Diagnosing catatonia in the context of delirium** was critical for guiding her treatment, but the subclinical presentation—potentially complicated by **COVID-19 psychosis and hypoactive delirium**—delayed the necessary intervention. This delay not only extended her hospital stay but also exacerbated her symptoms. The case underscores the importance of ongoing research into COVID-19's impact on the brain to improve early detection and management of complex neuropsychiatric conditions like catatonia.

References

1. Wilson JE et al: Delirium and Catatonia in Critically Ill Patients: The Delirium and Catatonia Prospective Cohort Investigation. *Crit Care Med* 2017;45(11):1837-1844.
2. Lesko A, Kalafat N, Enoh K, Teltser WK: The Importance of Diagnosing Concomitant Delirium and Catatonia: A Case Report. *Cureus*. 2022;14(1):e21662.