CATATONIA AND CANCER CARE: NOT JUST A PSYCHIATRIC DIAGNOSIS

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BACKGROUND

Catatonia is potentially reversible syndrome that results in an acute change to one's mentation, physical, and autonomic presentation that can be a life threating medical emergency. Once thought to be only psychiatric in nature, research now identifies 20-40% prevalence in those with ongoing medical populations, occurring in 10% of the population.

Given the complexity of not only identifying catatonia swiftly, but treatment, medical catatonias are frequently a missed diagnosis, and can comorbidly exist with a delirium, making treatment challenging.
A cascade of contributing factors (infection, brain injury, medications, organic) are thought to be contributary to the suspected dysregulation of neurotransmitters (dopamine, GABA, NMDA, Glutamate) that result in the 3 predominant medical catatonias characterized as hypokinetic, hyperkinetic, and malignant catatonia.

A standardized scale assessment (Bush-Francis Catatonia Scale) is a 23-point screening tool that is used to identify and score severity, and efficacy of treatment. Scheduled Ativan is the initial treatment option, however in such medically fragile populations, monitoring for acute respiratory failure and poss. Transfer to ICU for closer observation is a necessary consideration.

BUSH-FRANCIS CATATONIA RATING SCALE

Use presence or absence of items 1-14 for screening
Use the 0-3 scale for items 1-23 to rate severity

1. Excitement: 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 2 = Constant motion, hyperkinetic without rest periods 3 = Full-blown catatonic excitement, endless frenzied motor activity	**2. Immobility/stupor:** 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: Verbally unresponsive or minimally responsive 0 = Absent 1 = Verbally unresponsive to majority of questions; incomprehensible whisper 2 = Speaks less than 20 words/ 5 min 3 = No speech	**4. Staring:** Fixed gaze, little or no visual scanning of environment, decreased blinking. 0 = Absent 1 = Poor eye contact, repeatedly gazes less than 20 seconds between shifting of attention; decreased blinking 2 = Gaze held longer than 20 seconds, occasionally shifts attention 3 = Fixed gaze, non-reactive
5. Posturing/catalepsy: Spontaneous maintenance of posture(s), including mundane (e.g. setting or standing for long periods without reacting). 0 = Absent 1 = Less than 1 minute 2 = Greater than one minute, less than 15 minutes 3 = Bizarre posture, or mundane maintained more than 15 minutes	**6. Grimacing:** Maintenance of odd facial expressions. 0 = Absent 1 = Less than 10 seconds 2 = Less than 1 minute 3 = Bizarre expression(s) or maintained more than 1 minute
7. Echopraxia/echolalia: Mimicking of examiner's movements/speech. 0 = Mimicking of examiner's movements/speech 1 = Occasional 2 = Frequent 3 = Constant	**8. Stereotypy:** Repetitive, non-goal-directed motor activity (e.g. finger-play; repeatedly touching, patting or rubbing self); abnormality not inherent in act but in frequency. 0 = Absent 1 = Occasional 2 = Frequent 3 = Constant
9. Mannerisms: Odd, purposeful movements (hopping or walking tiptoe, saluting passers-by or exaggerated caricatures of mundane movements); abnormality inherent in act itself. 0 = Absent 1 = Occasional 2 = Frequent 3 = Constant	**10. Verbigeration:** Repetition of phrases or sentences (like a scratched record). 0 = Absent 1 = Occasional 2 = Frequent 3 = Constant
11. Rigidity: 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	**12. Negativism:** 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: 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:** Refusal to eat, drink and/or make eye contact. 0 = Absent 1 = Minimal PO intake/interaction for less than 1 day 2 = Minimal PO intake/interaction for more than 1 day 3 = No PO intake/interaction for 1 day or more.

CASE #1

The patient is a 66 female with a history of bipolar two disorder that had been under the care of an outside psychiatrist and stable for many years on Depakote, Lamictal, Seroquel. The patient had a cancer diagnosis of myelofibrosis and was treated with a Mis-matched unrelated donor stem cell transplant complicated by acute graft-versus-host disease. The patient's psychotropic medications had been placed on hold during an episode of mucositis and had not been restarted at the decision of the patient and husband. The patient was discharged home; however, the husband reported that the patient slowly started to decline physically with accompanying cognitive slowing.

The patient was readmitted for evaluation ~3 weeks later (10/25) with AMS and slowed/slurred speech, at which time psychiatry was consulted with high suspicion for hypoactive delirium and non-epileptiform seizures. High-dose thiamine started for cognition and team investigated underlying etiologies. Head CT from 10/20 w/o acute abnormality. MRI 10/25 negative for acute abnormality. Neurology consulted on 10/25, concern for myasthenia gravis vs. infections. Multiple antibiotics started, including cefepime (11/5-11/10).

The patient's exam was notable for profound cognitive decline in a matter of days. She became stuporous and mute, concerned for hypokinetic catatonia, scoring 13 on the bush- Francis catatonia scale (+ catatonia). Ativan challenge initiated, with little response and slow up–titration. The patient became autonomically unstable, with concern for malignant catatonia, and was transferred to ICU on 11/22 and intubated.

Ativan dose escalated to 48mg/day; the husband obtained guardianship for possible ECT via courts; however, the patient's condition was too fragile for transport to an outside hospital. She was extubated on 11/23/22, with dysautonomia resolving, with repeat EEG showing slowing, with background normal.

The patient was eventually transferred out of ICU to step down, Ativan tapered, while adding bid amantadine (12/20 – current) up to 100mg bid, presently at 25mg bid. A trial of Depakote was prescribed; however, discontinued r/t increased sedation, thus discontinued. The patient eventually achieved complete resolution of her catatonic symptoms wishing to remain off any other psychotropic medications and resuming care with her outside psychiatrist. The patient's total hospitalization was 140 days. The patient has been seen since with complete recovery and no remittance of catatonia and remains on amantadine.

CASE #2

The patient is a 44 y/o female with a history of tumoral calcinosis and bipolar disorder, seen for evaluation of altered mental status following right girdlestone procedure due to subacute dislocation of hip. She had had an unsuccessful attempt at reduction at an outside hospital prior to presentation at our facility. She was noted to be excessively somnolent and minimally responsive, was evaluated by neuro-oncology and given one dose of Narcan, after which she became somewhat more alert. Chart review indicated that she was being followed by a community provider in her home state and on a regimen of diazepam 5 mg daily, olanzapine 10 mg daily, and quetiapine 100 mg daily. She had previously also been taking duloxetine.

As her movements and responses seemed to be slowed and her behavior changed, the Bush-Francis catatonia rating scale was utilized and yielded a score of 11. Lorazepam 1 mg challenge completed with initial somnolence increased but within several hours was increasingly verbal and exhibited less resistance on evaluation. Her home medications were restarted, and she slowly improved over time. Lorazepam was not continued. Her recovery from surgery was complicated by infection and she was discharged 3 weeks later after return to baseline.

15 months later, she presented to our facility for another surgery to keep her femur in place. Psychiatry was consulted 5 days after surgery for history of bipolar disorder and recurrence of catatonia. Family at the bedside reported that she had consistently been taking her medications since the previous year and that her mood had been stable. Bush-Francis Rating Scale was utilized with a score of 22. Lorazepam 1 mg challenge was again given, with slight improvement. Home psychotropic regimen was kept with duloxetine 60 mg daily and quetiapine 100 mg daily. A regimen of scheduled lorazepam dosing was ordered, beginning at lorazepam 1 mg IV every 6 hours and titrated to 2.5 mg every 6 hours over 10 days.

She was noted to experience intermittent delirium with hallucinations and agitation requiring some use of antipsychotic medication for behavioral management. Attempts were made to wean down lorazepam without consistent success as patient continued to be intermittently delirious and catatonic. Mood became more depressed, and duloxetine was increased. Three weeks after the initial diagnosis of catatonia, amantadine was added and titrated up to 100 mg twice daily. Lorazepam was weaned off over the next Bush-Francis scores were consistently "0" over the next 14 days. Delirium cleared and patient was able to focus on physical rehabilitation. She was discharged with amantadine 100 mg twice daily, duloxetine 120 mg daily, and quetiapine 150 mg daily.

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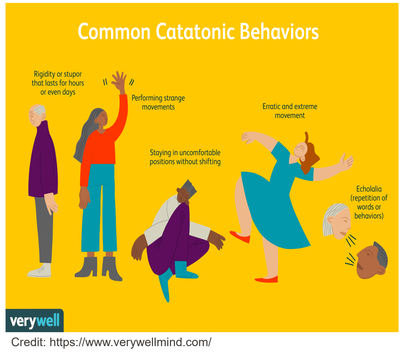
LESSONS LEARNED

Early detection, assessment and implementation of catatonia in our fragile oncology population can lead to more positive outcomes and improve the recovery of those identified with a medical catatonia. Increasing a clinician's awareness of medical catatonia can lead to earlier detection and decrease in comorbidity.



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