Background: Catatonia is a neuropsychiatric syndrome manifested by non-volitional alterations in behavior, motor activity, and speech which can mimic delirium. Because the treatment for catatonia is distinct and can be life-saving, catatonia should be in the differential diagnosis for all seriously ill patients who present with an altered mood or mental status (1). This Fast Fact identifies the distinguishing features of catatonia and offers management pearls when encountered in patients with serious illness.

Clinical Setting: Although little prevalence data exist regarding catatonia in seriously ill patients, prospective studies suggest that 1.8% of adult hospitalized patients and 8.9% of elderly hospitalized patients for whom psychiatry was consulted exhibited signs and symptoms of catatonia (2-4). Among ventilated patients, 31% met the criteria for both delirium and catatonia and 3% for catatonia alone (5). While depression, schizophrenia, and bipolar disorder are common psychiatric comorbidities, patients can develop catatonia from several medical etiologies, even when no pre-existing psychiatric disorder is present (6). The proposed physiology involves dopamine and GABA hypoactivity, and glutamate hyperactivity. Hence, dopamine antagonists like haloperidol or metoclopramide can exacerbate these physiologic perturbations, as can the abrupt withdrawal of benzodiazepines (7).

Clinical Features: Rigidity, posturing, stupor, immobility, and mutism are the most common features. More broadly, catatonia is characterized by three or more of the following symptoms, categorized into four symptom clusters. Although features can fluctuate in severity and range from hypoactivity (e.g. transient stupor) to hyperactivity (e.g. repetitive, purposeless movements), without prompt identification, and especially in the setting of concurrent antipsychotic administration, catatonia can progress to a fulminant condition called “malignant catatonia,” involving fevers, autonomic instability, and unstable vital signs (8).

- **Limited Activity**
  - Mutism: Decreased speech production or volume (not necessarily fully mute).
  - Stupor: Minimal responsiveness, muscles and posture often appear rigid.
  - Negativism: Opposition or no response to instructions or passive movements.

- **Unusual Positioning**
  - Catalepsy: Abnormal posturing or maintenance of an abnormal position with repositioning.
  - Waxy Flexibility: Slight but even resistance to positioning by examiner.

- **Abnormal Behaviors**
  - Mannerism: Unusual purposeful actions or behaviors (e.g. ambulating on one foot).
  - Stereotypy: Repetitive, frequent, non-goal directed movements
  - Grimacing: Exaggerated facial expressions

- **Paroxysmal Hyperactivity**: Short episodes of agitation, excited motor movements, echolalia (mimicking of examiner’s speech), and/or echopraxia (mimicking movements).

Diagnosis Challenges: Catatonia can clinically resemble delirium and many other medical conditions. This non-comprehensive list includes encephalitis, neuroleptic malignant syndrome, traumatic brain injury, stroke, developmental disorders, Parkinson’s-related akinesia, and status epilepticus (1). Its overlap with delirium can be especially difficult to differentiate, as up to a third of delirious patients also have features of catatonia (5,9). Several clinical features should clue clinicians to the presence of catatonia and prioritize a treatment trial for catatonia, given the concerns of symptom progression.

- **Features favoring catatonia**: Posturing; increased motor tone; mutism; negativism (resistance to instruction); echolalia or echopraxia; repetitive movements; symptoms worsen from neuroleptics.

- **Features favoring delirium**: Disorientation; inability to attend; disorganized thinking; hallucinations; impaired short-term memory; altered sleep-wake cycle; symptoms may improve with neuroleptics.

Management Strategies: Treatment is based largely on expert opinion, not controlled trials (1,8).

- If available, psychiatry consultation is recommended.
- Promptly discontinue precipitating agents such as neuroleptics and restart recently withdrawn GABAergic medications, such as benzodiazepines.
- Benzodiazepines are first-line catatonia treatments. Lorazepam 1-2 mg IV is often used as a diagnostic test dose as it can often lead to rapid, albeit transient, improvement. If successful, a standing order for lorazepam 1-2 mg IV q4-8 hours as needed is recommended.
If fever and autonomic instability occur in a patient with catatonia, ICU transfer and urgent psychiatry consult may be necessary. Electroconvulsive therapy (ECT) and/or dopaminergic medications such as amantadine and bromocriptine are often required.

Outcomes: Non-response to benzodiazepines does not preclude a diagnosis of catatonia. Case series suggest that lorazepam remission rates are about 75-80% for patients with catatonia (10). Malignant catatonia is associated with a mortality rate of 20% and worse response rates to lorazepam (11). Although lorazepam is still a first-line treatment for malignant catatonia, ECT is often required.

References:

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