

A Case Report on Catatonia: Barriers in Diagnosis and Treatment in Corrections

NCCHC

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Educational Objectives:

1. Describe the common signs and symptoms of catatonia.
2. Differentiate catatonia from other conditions with similar presentations.
3. Discuss barriers in treatment of catatonia in correctional settings.



Section 1 – The History of Catatonia

Short Notes and Clinical Cases.

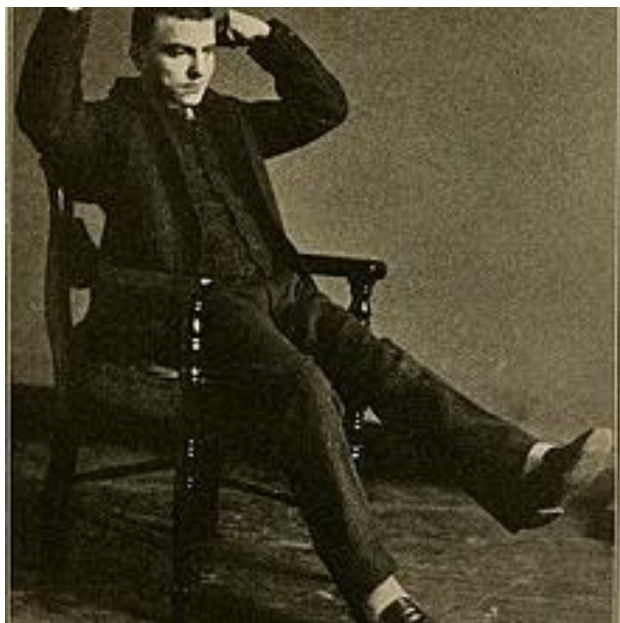
A CASE OF CATATONIA.

By ROBERT CYRIL TURNBULL, COLCHESTER.

THE patient, A. P., a discharged soldier, was admitted to hospital on Feb. 11, 1918. Prior to his admission, he had been under treatment in one of the war-neuroses hospitals since the middle of March, 1917.

The information at my disposal with regard to his mental state prior to his admission is scanty. He was described as mentally enfeebled, dull, unoccupied, and taciturn, and was said to wander aimlessly about. When I examined him his condition was typical of catatonia. He was mute, negativistic, and sat always in one fixed position, with his head down between his knees, holding on firmly to the seat of his chair. His muscles were taut, his hands clenched, his toes flexed, and his insteps arched. His deep reflexes were greatly increased. The man's face was screwed up and contorted, and his eyes were firmly closed. His face and his extremities showed a tendency to cyanosis, but were rarely cold. He resisted all attempts at passive movement. He walked with a shuffling gait, and held himself in a constrained attitude. When he exercised in the gardens his beat never varied, and he would continue to walk until led to a seat. Only on one or two occasions was he heard to speak, as, for instance, when he stumbled over some other patient and gave vent to a volley of oaths. The patient would feed himself when the food was placed in front of him; his habits were never defective.

This condition was maintained until 12.45 a.m. on Jan. 11, 1921, when the patient suddenly awoke in the dormitory and asked the night attendant to be allowed to go to the lavatory. He said he felt giddy



- Karl Ludwig Kahlbaum
- 1874 – Catatonia or Tension Insanity
 - Stupor
 - Mutism
 - Rigidity
 - Negativism
 - Echophenomena
- Patients with:
 - Depression
 - Mania
 - Epilepsy
 - Neurosyphilis
 - tuberculosis



- Emil Kraepelin ~1890
- Eugen Bleuler ~1908
- Karl Jaspers ~1910
- August Hoch ~1921
- Rolv Gjessing ~1938
- Joyston-Bechal ~1966

TRIAL 1.—V. H., robust male, age forty-five. Diagnosis: Dementia praecox catatonia of twenty years' duration. Patient found in bed, pale complexion, eyes closed, head elevated above pillow, arms slightly held above blanket. No movement or change of expression on questioning. Lips set. Sometimes showed contrary response on questioning.

TRIAL 3.—V. H. Same subject as in Trials 1 and 2.

Time P.M.	Pulse per min.	Resp. per min.	Systolic Blood Press.	Remarks
4:00	135	27	145	Condition same as noted at beginning of first trial.
4:01	135	15	160	Began administration of 30% CO ₂ and 70% O with rapid increase in concentration of CO ₂ as subject began breathing.
4:01½	.....	35	210	Pupil dilated; eyes open. Violent rocking movements and jerking motions of left arm and left leg. Subject holds breath and rolls eyes about.
4:02½	85	Irreg.	.....	Gas off. Pupils normal; eyes open. Running movements of legs.
4:03	.....	Viol. panting	180	Patient shows extreme psychic excitement. Looks rapidly from one member of the group to another with keen intelligent expression on face. No catalepsy present.
4:04	90	50	.....	Patient smiles broadly. Attempts to talk. Replies emphatically, "Yes, sir" to question, "Want some ice cream?" On being asked, "Which is Dr.—?" indicates by smile and turning eyes and head. Similarly recognizes another physician, and continues to answer questions.
4:06	90	20	150	Patient closes eyes; arms fall by gravity but catalepsy returns and patient quickly reverts to condition before administration.

Historic treatments

Pathophysiology

- Diverse neurotransmitters – GABA, Glutamate, 5HT, DA
- Manifestation of severe anxiety?
- Movement disorder – basal ganglia?
- Orbitofrontal, prefrontal, parietal, and motor cortical regions
 - fMRI but not EEG
 - Altered GABA_A binding
 - Correlated with severity of symptoms
 - Restored with lorazepam

A potentially fatal syndrome of rigid movements and abnormal behaviors which can result from psychiatric, neurologic, or other medical conditions

Definition



Section 2 – Diagnosis and Treatment

Catatonia

- Akinetic/withdrawn
- Hyperkinetic/excited
- Malignant



How do we diagnose catatonia?

- Immobility/Stupor
- Mutism
- Staring
- Posturing
- Grimacing
- Rigidity
- Waxy Flexibility
- Withdrawal
- Stereotypy
- Negativism
- Echopraxia/echolalia
- Excitement
- Automatic obedience
- Ambitendency

Underlying Cause:

- Psychiatric:
 - Schizophrenia
 - Bipolar disorder
 - MDD
- Medical:
 - Developmental disorders (especially autism)
 - Strokes, infections, cancers
 - Neurodegenerative diseases
 - Autoimmune etiologies (lupus, NMDAR encephalitis)
 - Toxins
- Medical investigations including bloodwork, LP, EEG/MRI

Catatonia Differentials

	Similarities	Differentiating Factors
Extrapyramidal Symptoms	rigidity, immobility, restlessness	Interactive, cooperative, presence of other EPS signs like tremor
Malignant hyperthermia	rigidity, immobility, mutism, autonomic instability	anesthetic exposure, muscle biopsy
Non-convulsive status	rigidity, immobility, inability to maintain oral intake, participate in exam	EEG
Abulia/akinetic mutism	minimal spontaneous movement, speech	benzodiazepine trial
Locked-in syndrome	immobility	absence of staring, imaging abnormalities
NMS	rigidity, immobility, mutism, autonomic instability, elevated CK	Recent neuroleptic administration, autonomic instability*, lead pipe rigidity

Catatonia Complications

- Aspiration pneumonia
- Dehydration, malnutrition
- Skin breakdown
- Muscle breakdown
- Progression to malignant catatonia

Treatment in the hospital:

- First line: parenteral benzodiazepines
 - 2 mg IM lorazepam, assess for response.
 - Repeat dosing every few hours until effective dose is observed
 - Continue maintenance benzodiazepine treatment (months)
 - 60-80% response rate
 - Underlying schizophrenia, chronic catatonia may suggest poorer response
- ECT: most effective treatment
- Other medications: zolpidem, NMDA receptor antagonists
- Treatment of underlying cause

Before and
after
treatment



Before and
after
treatment



Before and
after
treatment



Before and
after
treatment





Section 3 – Catatonia in Corrections

Case Report:

- *“Doç, you may want to look at this guy
....*
 - Change in psychomotor status, functioning or decline in responsiveness
- Bop.gov/about/statistics/
 - (09/24/2022)
 - 93.1% male
 - 80% of all US inmates are between 20 and 50. 75% are 26-50 years of age.
- Prison (66%) ; Jail (33%).
- Catatonia: 9-17% of acute psychiatric illnesses. Types: Retarded, Excited, Malignant (10% risk of death; NMS).
- Association: Psychiatric AND Medical Conditions.





Cell-Side Examination:

- Physical Examination
 - Visual:
 - *Sweating*
 - *Stupor*
 - *A-, Hypo-, Brady-kinesia*
 - *Cerea Flexibilitas*
 - *Catalepsy / Posturing (B*)*
 - *Verbigeration (B*)*
 - *(Incontinence, Poor Food Intake / Cachectic, Disheveled)*
 - Verbal:
 - *Mutism / Negativism*
 - *Echolalia / Echopraxia (B*)*
 - Touch:
 - *Waxy or Rigidity (75% of cases).*
 - *Vital Signs*
 - *Pupillary Reaction, gross neurological exam*

(B) Bizarre*

“Let’s go in”:



- Physical Examination
- Complications:
 - *Dehydration.*
 - *DVT / PE.*
 - *Pneumonia*
 - *Pressure Ulcers*
 - *Muscle Contractures*
- Work Up (Labs, ER, Radiology, ECT)
- *** Lorazepam ***:
 - *Sublingual*
 - *IM*
 - *IV*

Post-IM / Complications:



- Admit to infirmary. Frequent Vitals.
- Avoid Antipsychotics if you can.
- 3% chance of NMS (1% in general).
- Lorazepam, Diazepam, Zolpidem
- Success = Eating, drinking, walking.

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