Catatonia and Catalepsy

Catatonia

*Synonyms: waxy flexibility, flexibilitas cerea*

Catatonia is a state of apparent unresponsiveness to external stimuli in a patient who appears to be awake. It is a presentation of a number of different conditions rather than a disease itself. It may be an episodic condition with periods of remission, and triggered by medication or other changes in circumstances.¹

**Aetiology**¹

This is not an exhaustive list!

**Neurology**

- Non-convulsive status epilepticus, complex partial seizures.
- Encephalopathies.
- Cerebrovascular disease (thrombosis or haemorrhage, venous thrombosis, etc).
- Parkinsonism and dystonias.
- Tumours and other intracranial lesions (including post-surgery).
- Degenerative neurological diseases, including multiple sclerosis and Huntington's disease.
- Central pontine myelinolysis.
- Hydrocephalus.
- Head injury and locked-in syndrome.

**Psychiatry**

- Acute stress disorder, hysteria.
- Neuroleptic malignant syndrome.
- Major depression and mood disorders.
- Pervasive developmental disorders, including autism.
- Psychosis and schizophrenia.
- Substance intoxication or drug withdrawal.
- Anorexia nervosa.

**Infection**

- Meningitis and/or encephalitis.
- Neurosyphilis.
- AIDS.
- Malaria.
- Septicaemia.
- Typhoid.
- Tuberculosis

**Medical**

- Addison's disease, hypopituitarism, carcinoid tumours.
- Hyperthyroidism.
- Electrolyte imbalance, hyperparathyroidism.
- Acute intermittent porphyria.
- Diabetic ketoacidosis.
Hepatic failure or chronic kidney disease.
Systemic lupus erythematosus.
Hypothermia or hyperthermia.
Thrombotic thrombocytopenic purpura.
Poisoning (carbon monoxide, lead).

Inherited neurometabolic disorders
- Homocystinuria.
- Hereditary coproporphyria.
- Tay-Sachs disease.
- Wilson's disease.

History
Catatonia can occur in a huge range of conditions and it is very important to identify any treatable causes - particularly psychosis, non-convulsive status epilepticus, neuroleptic malignant syndrome or encephalitis. No history will be forthcoming from the patient - but there may be relevant history from family or friends. Determine whether there is anything relevant in the medication list or past medical history to suggest a cause.

Examination
Perform a full examination. Check for a pyrexia, meningism or other signs of infection. Note whether there are any neurological signs or abnormal movements, or cogwheel rigidity (Parkinsonism). A grasp reflex may be present.

Classic features
- Motoric immobility - catalepsy (see below), waxy flexibility, stupor (extreme hypoactivity, minimal response to stimuli, including painful ones).
- Mutism - verbally minimally responsive.
- Negativism - involuntary resistance to passive movement, or involuntary oppositional behaviour (Gegenhalten).

There may be automatic obedience or exaggerated co-operation, combativeness, or even ambitendency (alternating co-operation and opposition). Other features include mitgehen (eg, arm raising in response to light finger pressure, despite instructions to the contrary), echopraxia, echolalia or verbigeration (repetition of phrases or sentences like a scratched record); or stereotypies (repetitive meaningless activities).

There is also an excited-delirious variety of catatonia with extreme hyperactivity (constant motor unrest or non-purposeful repetitive motor activity). Patients may develop hyperthermia, tachycardia, and hypertension and be in danger of collapse from exhaustion.

The catatonia rating scale may be helpful in assessments.

Investigations
- FBC, U&E and creatinine, LFT, glucose, calcium, fibrin D-dimer, serum creatine kinase (usually elevated in neuroleptic malignant syndrome), serum ceruloplasmin (to detect Wilson's disease).
- Electroencephalogram (EEG) should readily identify a seizure disorder.
- CT, MRI or positron emission tomography (PET) scan may be appropriate to exclude intracranial lesions.

Management
The patient needs admission for identification and treatment of the underlying condition, and may require enteral feeding.

Historical note
Catatonia was first described by Karl Kahlbaum in 1874. The dancer Nijinsky was apparently affected by catatonia.
Catalepsy

Catalepsy is a state characterised by a patient keeping an uncomfortable, rigid and fixed posture despite external stimulus or resistance. There may also be decreased sensitivity to pain. It is a feature seen in catatonia (see above).

Further reading & references


3. Catatonia Rating Scale; United Kingdom Psychiatric Pharmacy Group

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