

### ***The many faces of Catatonia***

Once catatonia was defined by reliable diagnostic criteria, numerous syndromes were brought into the catatonia tent, first by recognizing catatonia signs, and then by the efficacy of the catatonia treatments. In patients with two or more catatonia signs for 24 hours or longer, the quick relief from an acute administration of a benzodiazepine verifies the presence of catatonia, and both induced seizures and high dose benzodiazepines were found clinically effective. <sup>1</sup>

The common image of catatonia is the mute, stuporous, posturing, rigid, staring and negativistic patient. Persistent mutism is described in many different forms including *selective mutism* and *persistent refusal syndrome*, the latter commonly described in the UK. <sup>2</sup>

A febrile neurotoxic lethal form that follows the administration of high potency neuroleptic agents, known as the *neuroleptic malignant syndrome* (NMS), was increasingly recognized in the 1980s. The pathophysiology was thought to result from dopaminergic blockade and the agonist bromocriptine was prescribed. Muscular weakness was related to malignant hyperthermia and the muscle relaxant dantrolene was also prescribed. But these treatments were ineffective. When the connection to catatonia was seen and benzodiazepines and ECT were prescribed, outcomes were much better. NMS is successfully treated as a form of catatonia. <sup>3</sup>

The *toxic serotonin syndrome* (TSS) is an acute syndrome with similar motor and vegetative signs as NMS that follows the use of serotonergic agents. It is responsive to catatonia treatments.

*Malignant* (lethal, toxic) *catatonia* was described before the advent of neuroleptic agents, occurring as an acute syndrome with fever, dehydration, and excitement. A life-threatening form labeled *delirious mania* (DM) is identified that is remarkably responsive to daily induced seizures.

*Self-injurious behaviors* (SIB) are increasingly recognized among adolescents with mental handicap, autism, and autism spectrum disorders. The same repetitive acts are features in Gilles de la Tourette syndrome and obsessive compulsive disorders. When such patients are seen as ill with catatonia they have been successfully treated by ECT . Since 2007 an auto-immune encephalitis identified by an abnormality of the NMDA receptor in serum or CSF tests is characterized by catatonia. When identified, its treatment as catatonia is successful.

Each of these behavior syndromes is identified by catatonia signs and successful treatment validates the diagnosis of catatonia. The range of behaviors recognized as catatonia, the increasing recognition of catatonia as a systemic medical illness, and the divorce from the century-long association with schizophrenia has moved catatonia from its consideration as a psychiatric disorder to the increasing recognition as a systemic medical disorder. When surveys of the numbers of patients with catatonia are done in academic hospitals and emergency rooms, using Catatonia Rating Scales, from 9% to 20% of the populations show 2 or more catatonia signs.

Such association, with its effective treatments, has done much to relieve catatonia in emergency rooms, medical and neurologic clinics, and consultation and liaison services. Identifying catatonia as an independent syndrome and its effective relief by available treatments is an important milestone in the history of medicine.

### ***The Catatonia Syndromes***

<b>Retarded Catatonia Benign Stupor</b>	<b>Kahlbaum Syndrome (KS)</b>
<b>Excited catatonia Delirious mania</b>	<b>Manic excitement Manic delirium Bell's mania</b>
<b>Oneiroid state</b>	<b><i>Onirisme</i>, Oneirophrenia</b>
<b>Malignant catatonia (MC)</b>	<b>Lethal catatonia Pernicious catatonia</b>
<b>Neuroleptic malignant syndrome</b>	<b>NMS; MC/NMS <i>Syndrom malin</i> Neuroleptic induced catatonia</b>
<b>Toxic serotonin syndrome</b>	<b>Serotonin syndrome; TSS</b>
<b>Repetitive Syndromes</b>	<b>Tourette's Syndrome Post-Encephalitic Parkinsonism Self-injurious Behavior Anti-NMDAR encephalitis</b>
<b>Periodic catatonia</b>	
<b>Mixed affective state</b>	<b>Rapid cycling mania</b>
<b>Primary Akinetic mutism</b>	<b>Apallic syndrome Stiff man syndrome Locked-in syndrome</b>

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<sup>1</sup> Fink M, Taylor MA. 2001. The many varieties of catatonia. *Eur Arch Psychiatry Clin Neurosci* 251: Suppl. 1: 8-13.

<sup>2</sup> Fink M. 2013. Rediscovering catatonia *Acta psychiatr Scand* 2013; 127, Supplement 447, 1-50.

<sup>3</sup> Fink M, Taylor MA. 2003. *Catatonia: A Clinician's Guide to Diagnosis and Treatment*. New York: Cambridge University Press.