

### ***CATATONIA AS A SYSTEMIC MEDICAL SYNDROME***

Catatonia is a syndrome of acute onset that is found among the systemically ill with infections, endocrine and metabolic disorders, neurological disorders including epilepsy, as well as in psychiatric disorders of mood and psychosis. It is, in other words, not just a psychiatric condition. The subject is more than of a classification interest since catatonia has life-threatening variants and yet responds readily to treatment, giving the clinician the opportunity to make a therapeutic difference. By detailed rating scales, verifying tests, and effective treatments, patients are now assured of relief. Should catatonia continue to be considered solely a psychiatric disorder?

By an error of the developing psychopathology in the late 19<sup>th</sup> Century, catatonia was tied to schizophrenia. This error persists, disserving many ill patients found in hospital emergency rooms and medical and neurologic wards where the many variants of catatonia are not readily recognized and effective treatments are not prescribed. Its recognition as a systemic medical condition, not as a psychiatric, will assure better clinical outcomes.

#### *How the Error was Made*

The peculiar motor syndrome was identified in 1874 by Karl Kahlbaum, the director of a private psychiatric sanitarium in Görlitz, Germany. In a small volume titled *Die Katatonie oder das Spannungsirresein: eine klinische Form psychischer Krankheit* (Catatonia or tension insanity: the clinical form of a psychiatric disorder) he presented clinical vignettes of 26 patients -- 12 severely depressed, 9 suffering from seizure disorders, 3 with neurosyphilis, and 2 with tuberculosis. He identified 16 behaviors of immobility, posturing, mutism, negativism, staring, grimacing, stereotypy, mannerisms, echophenomena, and waxy flexibility to characterize the syndrome. He painted the images so well that within a few years other physicians widely confirmed the syndrome.

Emil Kraepelin, then a most eminent European psychopathologist and author of multiple psychiatric textbooks, clustered the chronic psychiatric ill in his clinic into a few

diagnostic classes, principally *dementia praecox* and *manic-depressive insanity*. Patients with Kahlbaum's syndrome were assigned to the class of *dementia praecox*.

By 1908 the Swiss psychiatrist Eugen Bleuler re-labeled *dementia praecox* among the schizophrenias, designating catatonia as its marker. Thereafter, so secure was the connection that patients with catatonia were pigeonholed together within schizophrenia, despite a more frequent occurrence in patients with mania and depression, epilepsy, and diverse infections of neurosyphilis, tuberculosis and typhoid fever.

Rapid relief of catatonia by parenteral dosing with amobarbital (Amytal) was described in 1930. The barbiturates quickly joined the common protocol to treat the mute, the stuporous, the negativistic, and the excited delirious. In recent decades, benzodiazepines replaced the barbiturates for their lesser toxicity. More than 80% of catatonic patients are now improved within two weeks by high doses of benzodiazepines.

In 1934 catatonia was relieved by grandmal seizures induced by intravenous pentylenetetrazol (Metrazol). By 1936 the treatment had been so widely adopted that its benefits were positively reported at an international conference in Switzerland. In 1938 a method of seizure induction using electricity was described; its ease of use quickly replaced chemical inductions and is the standard method of electroconvulsive therapy today.

For much of the 20<sup>th</sup> Century, catatonia was of little clinical or research interest. Barbiturates were effective enough for neurologists to ask whether catatonia had disappeared. For those presenting the signs of catatonia in the context of schizophrenia, potent neuroleptic drugs were prescribed. Some patients became acutely ill, febrile, hypertensive, and tachycardic. Some died. This neurotoxic syndrome stemmed in fact from catatonia. It is known as the neuroleptic malignant syndrome.

The publication of catatonia rating scales eased ascertainment of the syndrome among frenzied manic patients, in adolescents with autism, among those with repetitive behaviors of tics and Tourette's syndrome, various mutisms, and a newly discovered syndrome labeled "NMDAR encephalitis."<sup>1</sup> Realizing these illnesses as catatonia variants offered effective treatment options not otherwise considered.

Increased recognition of catatonia among severely depressed, manic and delirious patients, and the failure of effective catatonia treatments to influence schizophrenia, led to questioning the connection of catatonia with schizophrenia. Calls to divorce catatonia from schizophrenia led the 1994 American Psychiatric Association to add a new class of

*catatonia secondary to a medical condition* (293.89) in DSM-IV . The divorce of catatonia and schizophrenia was finalized in 2013 when the DSM-5 classification of psychiatric disorders deleted *schizophrenia, catatonic type* (295.2) leaving catatonia as a broader medical condition. Kraepelin's error has been rectified within psychiatry. Other medical specialties, however, are commonly unaware that catatonia represents a clinical systemic syndrome rather than an exclusive psychiatric curiosity.

*Correcting the Error and Moving Forward*

Catatonia is a syndrome associated with systemic illnesses. Freed from sole identification with schizophrenia and let loose as an identifiable illness across the medical spectrum the professions face the choice whether catatonia best retained among the psychoses, mood disorders, psychoneuroses, and personality disorders that characterize the psychiatric ill, or is it better recognized among the systemic disorders that are the province of all physicians?

That effective relief of catatonia generally leaves no residual signs also distinguishes it from common psychiatric disorders where the relief is slow, symptomatic, and incomplete. Therapeutic results in catatonia are more like those afforded infectious diseases by antibiotics. There is an interesting historical analogy with neurosyphilis which once was within the practices of alienists and psychiatrists. When its diagnosis was confirmed by serology tests and effective treatment by penicillin established, the illness became the charge for all medical practitioners. Similarly in catatonia, the reliability of diagnosis and the efficacy of treatment with benzodiazepines, sedatives and ECT warrants its reconsideration as a medical disorder. Such a status change will improve the medical care and outcomes of patients with this common but often overlooked disorder.<sup>2</sup>

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<sup>1</sup> Fink M. Rediscovering Catatonia: The Biography of a Treatable Syndrome. *Acta psychiatr Scand.* 2013; 127: Supplement 441;1-50.

<sup>2</sup> Fink M, Fricchione G, Rummans T, Shorter E. Catatonia is a systemic medical disorder. *Acta psychiatr scand.* 2016; 133(1): 250-1.