Catatonia in Adolescents and Children

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Catatonia is found in at least 10% of patients admitted to acute psychiatric services, so any young patient with stupor, unexplained excitement or persistent motor signs should be formally assessed for this syndrome. From among the 20 to 40 now-identified features of catatonia, its proper diagnosis must be differentiated from other mental illnesses.

(This article was derived from Catatonia: A Clinician's Guide to Diagnosis and Treatment, written by Dr. Fink and Michael A. Taylor, M.D., and will be available January 2003 from Cambridge University Press--Ed.)

Mutism, negativism, posturing, staring and echophenomena are among the odd behaviors seen in adolescents. The possibility that these motor behaviors meet criteria for catatonia is usually disregarded with the thought that catatonia is a type of schizophrenia, and the other schizophrenia criteria are lacking. The failure to recognize the catatonia syndrome is unfortunate, for such failure may have dire consequences, the more tragic because the syndrome is eminently treatable. Modern diagnostic classification systems place catatonia as a subtype of schizophrenia. In the 1970s, American authors described catatonia among patients with mania and depression and among those with neurologic and medical disorders, bringing the syndrome out of schizophrenia's shadow. Since then, diagnostic criteria and effective treatment algorithms have been defined, rating scales developed, and different illnesses have been included in the syndrome. The most surprising aspect is that catatonia is found in at least 10% of patients admitted to acute psychiatric services (Fink and Taylor, in press).

The first description of catatonia in 1874 included 17 characteristic motor signs. Authors now identify from 20 to 40 features. (Catatonia's principal features can be found online at <www.psychiatrictimes.com/principal.html>). The most common form is the retarded or stuporous variety. Less common, but often more malignant, is an excited form, associated with fever and severe autonomic imbalances. This form is identified as malignant catatonia or neuroleptic malignant syndrome.

Many psychiatric disorders present with catatonia and are known to respond to treatment (Table 1). (Due to copyright restraints, we are unable to publish this table online. Please see our print publication--Ed.) Thus, it is reasonable to approach the treatment of these disorders as if they are variations of catatonia. Examination procedures that identify catatonia (Table 2). (Due to copyright restraints, we are unable to publish this table online. Please see our print publication--Ed.) are the basis for modern catatonia rating scales.

The number of signs or their duration needed to define the syndrome is unclear. Two signs persisting for a day or longer seem sufficient, although most patients have more signs that often persist for weeks or longer, especially if untreated. Criteria for the diagnosis of catatonia independent of schizophrenia have been proposed for future classification systems (Table 3). (Due to copyright restraints, we are unable to publish this table online. Please see our print publication--Ed.) A 1930 report that intravenous barbiturates successfully resolved catatonic stupor was the first milestone in its treatment, heralding the psychopharmacology revolution. In 1934, catatonie schizophrenia was reported to be successfully resolved with chemically induced seizures (now electroconvulsive therapy [ECT]). In the 1980s, the benzodiazepines replaced the barbiturates and have been described as effective in 80% of catatonic patients. When these treatments fail, especially in patients with malignant catatonia and delirious mania, ECT is remarkably effective.

Pediatric Catatonia

Children and adolescents with the psychiatric illnesses identified as mania; depression; systemic medical, neurologic and toxic illnesses; autism and developmental disorders; mental retardation; and schizophrenia often exhibit multiple signs of catatonia. Such pediatric catatonia--more often found in boys than in girls--has the same characteristics, similar precipitants and the same response to treatments as adult catatonia.

The literature presents many examples. Dhossche and Bouman (1997a) found 28 case reports published in English between 1966 and 1996, and they added another. Eleven patients had been
diagnosed as suffering from atypical or brief psychotic disorders, 10 had an organic illness (general medical condition such as epilepsy, viral infection or a drug-induced condition), five had a mood disorder and three had schizophrenia. Stupor or catalepsy (27 out of 29), mutism (26 out of 29), posturing/grimacing/stereotypy (16 out of 29), echolalia or echopraxia (four out of 29) and excessive motor activity (four out of 29) were the main catatonic features.

Cohen and colleagues (1999) described a personal experience with nine adolescent psychiatric patients with catatonia. Six were classified as having schizophrenia, one with schizophreniform disorder and two with bipolar depression. Each patient responded when either benzodiazepines or ECT was added to their medications. In a retrospective study in a university-based inpatient service, Moise and Petrides (1996) reported that catatonia was relieved in five adolescents treated with ECT.

**Autism**

Wing and Shah (2000) looked for catatonia among 506 consecutive referrals to a social and communications disorders program in Great Britain. Thirty individuals with autism (6%) met catatonia diagnostic criteria. It was not detected in those under 15 years of age, but, in those aged 15 to 50 years, catatonia was found in 17% of the referrals.

A 14-year-old boy with a pre-existing history of autism exhibited stupor with mutism, akinesia, rigidity, waxy flexibility, posturing, facial grimacing and involuntary movements of the upper extremities (Zaw et al., 1999). Intravenous sodium amytal (Amytal, Luminal, Nembutal) elicited no benefit, but intravenous zolpidem (Ambien) did. Dramatic and sustained relief of the catatonia was elicited with ECT without a change in the symptoms of autism.

**Developmental Disorders**

A 17-year-old adolescent boy with Prader-Willi syndrome (a developmental disorder characterized by hypotonia, hypogonadism, obesity, self-injury and mental retardation) developed stupor, staring, incontinence, mutism, rigidity, waxy flexibility, posturing, refusal to eat or drink, and disruption of the sleep-wake cycle (Dhossche and Bouman, 1997b). He failed to improve with haloperidol (Haldol) but showed improvement with lorazepam (Ativan) (4 mg/day). Persistent psychosis was then successfully treated with risperidone (Risperdal) (6 mg/day).

Motor disorders were systematically assessed in 236 patients in a hospital for the mentally handicapped (Rogers et al., 1991). Of the signs of catatonia, 48% exhibited psychological pillow, 40% echopraxia, 20% posturing, 6% passive resistance and 4% repetitive speech. Many other movement problems were noted.

**Children**

An 11-year-old depressed boy with suicidal intent exhibited catatonia and head banging. His illness remitted with ECT, and a 12-year-old girl with mania and catatonic features responded similarly. A prepubescent boy in depressive stupor exhibited a positive dexamethasone-suppression test paralleling similar findings in adults. He was successfully treated. The effective response to ECT of an 8-year-old girl with catatonic signs in major depression was reported.

**Conclusion**

Catatonia in the young is similar to the syndrome in adults. It is sufficiently frequent among children and adolescents that any young patient with stupor, unexplained excitement or persistent motor signs should be formally assessed for it. The differential diagnosis (in order of decreasing frequency) is mood disorder, seizure disorder, developmental disorder and autism, and schizophrenia. The treatments that are effective in adults are also useful in pediatric patients.

**References:**


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