

Mutism as the Presenting Symptom: Three Case Reports and Selective Review of Literature

Ashish Aggarwal, Dinesh Dutt Sharma, Ramesh Kumar, Ravi C. Sharma

ABSTRACT

Mutism, defined as an inability or unwillingness to speak, resulting in an absence or marked paucity of verbal output, is a common clinical symptom seen in psychiatric as well as neurology outpatient department. It rarely presents as an isolated disability and often occurs in association with other disturbances in behavior, thought processes, affect, or level of consciousness. It is often a focus of clinical attention, both for the physician and the relatives. Mutism occurs in a number of conditions, both functional and organic, and a proper diagnosis is important for the management. We hereby present three cases, who presented with mutism as the presenting symptom and the differential diagnosis and management issues related to these cases are discussed. The authors also selectively reviewed the literature on mutism, including psychiatric, neurologic, toxic-metabolic, and drug-induced causes.

Key words: *Differential diagnosis, mutism, presenting symptom*

INTRODUCTION

Mutism is defined as an inability or unwillingness to speak, resulting in the absence or marked paucity of verbal output. It is a common presenting symptom seen in various disorders, including psychiatric as well as medical disorders. Though, it often is the main focus of clinical attention, both for the patients and the treating physicians, it rarely presents as an isolated disability and often occurs in association with other disturbances in behavior, thought processes, affect, or level of consciousness. Despite its association with a variety of neuropsychiatric disorders, mutism has received relatively little attention in the psychiatric literature.^[1,2] Mutism occurs in a number of conditions, both functional and organic, and a proper diagnosis is important for the management. We hereby present three cases, who presented with mutism as the presenting symptom and the differential diagnosis and management issues related to these cases are discussed. The literature on mutism, including psychiatric, neurologic, toxic-metabolic, and drug-induced causes, is also selectively reviewed.

CASE REPORTS

Case A

A 26-year-old unmarried male educated upto high school presented with abrupt onset progressive complaints of not speaking at all and decreased oral intake for the past 2 days. The symptoms started after the patient had an altercation with his brother. This was also associated with anxiety symptoms and hiccups that would occur in episodes for hours together. There was no other significant history suggestive of any organicity or psychosis, mood disorder, or any history of substance use. The patient had past history of an episode of acute stress reaction with mutism around 7 years back when he witnessed murder of his friend. Also, he would have episodes of mutism in between lasting few hours to 1 day around three to four times in the last 3 years. His family and personal history were non-significant. He had submissive and dependant traits in his pre-morbid personality. Positive findings in the mental status examination (MSE) were that the patient was following commands given to him, he would respond

Department of Psychiatry, Indira Gandhi Medical College, Shimla, Himachal Pradesh, India

Address for correspondence: Dr. Ashish Aggarwal,
Department of Psychiatry, Indira Gandhi Medical College, Shimla - 171 001, India. E-mail: drashish1980@gmail.com

DOI: 10.4103/0253-7176.70542

in non-verbal manner or by writing, his eyes were open and movements were normal, he would cough and clear throat when asked to do so, would have hiccups (around 20 times in interview of around 30 min), and his psychomotor activity (PMA) was decreased. He was mute through out the interview. All his routine investigations were normal. A diagnosis of dissociative (conversion) disorder-motor type was made and the patient was started on sertraline 50 mg per day along with chlorpromazine 100 mg per day. He was engaged in supportive psychotherapy and suggestion under pentothal was given and patient showed improvement in symptoms. His ongoing life stressors were discussed and coping skill enhancement was done. He was subsequently discharged and had been maintaining well for the past 9 months of follow up.

Case B

A 29-year-old unmarried male was brought by police personnel with acute onset complaints of not speaking for 9 and a half months and history of irrelevant talks for 2 weeks associated with inability to speak in between. The patient had been under trial for the last 3 years for alleged charge of rape and murder. The patient would generally prefer to remain quiet when asked about any thing. He would ask for his daily requirements by gestures/writing down. He would however maintain his routine daily chores and his vegetative functions were maintained. MSE revealed a young male with little speech output and occasional irrelevant talks in between. On formal questioning, he reported sadness of mood but did not reply to other questions asked. A provisional diagnosis of depressive stupor versus dissociative stupor was kept and started on imipramine 50-125 mg per day along with risperidone 2 mg per day and lorazepam 1.5 mg per day in divided doses. Inj. lorazepam 4 mg was given on stat basis, with no improvement in his symptoms. Cat scan head plain and contrast was also normal. On evaluation, he would follow simple commands and was able to write properly on persuasion. He would show appropriate facial expressions. He did not respond to suggestions given. He would speak out of the context and would start quarreling with jail inmates for no apparent reason. Risperidone was increased without any response and he was subsequently admitted. No other significant history could be elicited. History from patient's father was also taken and no pervious history of psychiatric illness or substance use other than tobacco was obtained. There was no family history of any psychiatric illness. On admission, it was observed that the patient had rashes present on dorsum of left hand. MSE revealed that eye contact could be established but not maintained, decreased PMA, his speech was decreased in output but was clear and comprehensible, his mood was sad but

affect appeared euthymic with full range as shown by facial expressions. He would also on occasions give approximate answers to various questions asked (e.g. date: said 10th instead of 9th, month: said December instead of November,). He would be able to comprehend simple things. He would be able to write what was given to him. All his routine blood investigations were within normal limits. Observing him unobserved did not reveal any abnormality in behavior. Though, he would talk irrelevantly and would give wrong/approximate answers when talked too. Information from collateral sources revealed that he was told to behave in this manner to plead his case. A diagnosis of malingering was made. Skin opinion was taken and a diagnosis of factitious dermatitis was made which further supported our diagnosis. The patient was confronted, and was explained the possible outcome of his behavior. All his medicines were tapered and there were no relapse of symptoms.

Case C

A 35-year-old married male was brought by police personnel with chief complaints of not speaking for the last 3 months. The patient had been under trial for the last 6 months for the alleged charge of setting fire in a cowshed. He would not interact with any of the jail inmates. He would however ask for food by non-verbal communication/gestures and would perform all his daily chores normally as reported. He was asked to follow up with family members. History reviewed from wife and elder brother revealed history of 18 years history characterized by violent abusive behavior, wandering behavior, irritability, decreased sleep, restlessness, muttering to self, and at times reporting that other would harm him, associated with withdrawn behavior and socio-occupational dysfunction. On one occasion, he became mute also and did not talk for a period of around 4 months associated with sadness of mood and decreased interest in surroundings. 6 months back, he had symptoms of muttering to self, would often roam about naked and get irritable on minor issues. No other significant history was obtained. MSE revealed decreased PMA, rapport not established, eye to eye contact could not be maintained, he was mute and would communicate nonverbally appropriately. His affect was blank with no facial expressions. All his routine investigations were within normal limits. A diagnosis of schizophrenia was entertained, and he was started on risperidone 6 mg per day and lorazepam 4 mg per day. Gradually the patient started showing improvement in symptoms.

DISCUSSION

Proper diagnosis is important for management. Firstly, it is important to distinguish between various

disorders of speech. Some of these besides mutism are as follows:

1. **Aphonia:** Defined as the absence of definable laryngeal tone i.e. loss power of vocal chords to adduct.
2. **Aphasia:** This is a disorder of the content of speech, seen generally in organic conditions and occasionally as gargon aphasia in schizophrenia
3. **Dysarthria:** A motor speech disorder characterized by difficulty in articulation of speech. Any of the speech subsystems (respiration, phonation, resonance, prosody, articulation and movements of jaw and tongue) can be affected.

All of our patients had no signs or symptoms suggestive of organicity. One important aspect in case B was that one should keep a possibility of malingering in such group of patients. Though case C was also brought by police personnel and was under trial, he had past history of psychotic illness and also his crime was not that serious/grave as compared to case B. The points favoring our diagnosis in respective cases have been summarized in Table 1.

Besides psychiatric causes, there are other many causes of mutism. Some of these are summarized in Table 2.

Regarding the frequency of various causes of mutism, besides case reports describing mute patients, there are few studies that report a series of patients presenting with mutism and describing various diagnostic categories. Some of these studies are summarized in Table 3.

Proper history is important to reach a diagnosis. One must perform a thorough physical and systemic examination to rule out organic causes for mutism.

Table 1: Summary of the cases

Case No.	Diagnosis	Points favoring the diagnosis
A	Dissociative (conversion) disorder-motor type	History of stress Normal coughing and throat clearing Past history of similar symptoms Dependant and submissive traits No neurological focal sign Response to suggestion under thiopentone
B	Malingering	Strong motive present Unusual symptoms Not fitting in to any diagnosable psychiatric condition No neurological signs Normal vegetative functions Normal behavior when observed unnoticed No response to treatment
C	Schizophrenia	No apparent motive History of clear cut psychotic symptoms Past history of getting mute while in psychosis Restricted affect Response to treatment with antipsychotics and lorazepam

Table 2: Differential diagnosis of mutism

Psychiatric causes	
Schizophrenia	Catatonic Paranoid Disorganized As a part of cultural expression of symptom
Affective disorder	Major depression Bipolar disorder, manic Bipolar disorder, depressed
Other psychotic disorders	Schizophreniform psychosis Schizoaffective disorder Brief reactive psychosis Atypical psychosis
Organic mental disorders	Dementia Organic delusional syndrome Organic affective syndrome Substance induced (e.g., PCP)
Other disorders	Wacinko (CBS seen in oglala sioux) Cultural form of anger expression Conversion/dissociative disorders Factitious disorder Malingering
Disorders of childhood	Infantile autism Elective mutism Developmental failure (MR and deafness)
Drug induced	
Drug-induced conditions	Neuroleptic agents Phencyclidine (PCP) Maprotiline hydrochloride Corticosteroids Antihypertensive agents Alcohol Mescaline Morphine Aspirin
Neurological causes	
Cerebral cortex	Alzheimer's disease Pick's disease Subdural hematoma Bilateral frontal lobe lesions Amyotrophic lateral sclerosis, upper motor neuron Anterior cerebral artery occlusion Nonfluent aphasia Aphemia Pseudobulbar palsy
Brainstem	Mass in third or fourth ventricle, pineal, thalamus, midbrain (hemangioma, epidermoid cyst, tuberous sclerosis, neoplasm) Amyotrophic lateral sclerosis, lower motor neuron Paramedian lesions of reticular formation Poloencephalitis Cerebral hemorrhage Brainstem compression
Basal ganglia	Parkinson's disease Huntington's disease Wilson's disease Fahr's disease Progressive supranuclear palsy Dystonia musculorum deformans
Limbic system	Infarction Bilateral cingulate hemorrhage Akinetic mutism (medial forebrain bundle lesion, third ventricular cyst, traumatic hemorrhage, lesion of fourth ventricle or brainstem, basilar artery thrombosis)
Others	Tertiary syphilis, Epilepsy

Table 2: Differential diagnosis of mutism

Toxic and local causes	
Toxic and metabolic conditions	Hypoparathyroidism
	Addison's disease
	Myxedema
	Diabetic ketoacidosis
	Hypercalcemia
	Acute intermittent porphyria
	Hepatic encephalopathy
	Glutethamide withdrawal
	Organic fluoride toxicity
	Illuminating- gas intoxication.
Local laryngeal abnormalities	Inflammation (laryngitis)
	Obstruction (tumor)

Also, at times, observation for some time period may be warranted and should be done to reach final diagnosis.

The utility of pentothal interview^[7] in some cases can be therapeutic also as in our case A. Besides being a useful tool to differentiate organic from functional conditions, it can be used to give suggestions and thus help in the immediate management of dissociative disorders.

To conclude, it is important to recognize the correct cause for proper management of mutism. Though our cases had psychiatric cause for mutism, one must have a high index of suspicion and look for various other non-psychiatric causes for mutism, as this will decide the management and prognosis of the patient.

REFERENCES

1. Kaplan HI, Sadock BJ, editors. Comprehensive textbook of psychiatry. 9th ed. New York: Williams and Wilkins; 2009.
2. MacKinnon RA, Michels R. The psychiatric interview in clinical practice. Philadelphia: WB Saunders; 1971.

Table 3: Frequency of causes for mutism

Author and year	N	Results
Smith <i>et al.</i> ^[3] 1959	27 consecutive patients with stupor	Depression-44% Schizophrenia-33% Epilepsy-7% "Mixed neurotic" (hysterical)-15 %
Joyston-Bechal <i>et al.</i> ^[4] 1966	100 consecutive patients presenting with stupor	Schizophrenia-35%, Depression-27%, Organic disorders-20%, Mixed neuroses-10%
Abrams and Taylor ^[5] 1976	55 patients with catatonia, 37 had mutism	Affective disorder-67% Schizophrenia-11% Organic brain syndrome-16% Reactive psychoses-5%
Altshuler <i>et al.</i> ^[6] 1986	22 consecutive cases	73% Psychiatric diagnosis (Schizophrenia, affective disorder, organic mental disorders, atypical psychosis with paranoid features) 27% non-psychiatric diagnosis (cerebrovascular accident, postencephalitic parkinsonism, post-herpes encephalitis.

3. Smith S. An investigation and survey of twenty-seven cases of akinesia and mutism (stupor). *J Ment Sci* 1959;105:1088-94.
4. Joyston-Bechal MP. The clinical features and outcome of stupor. *Br J Psychiatry* 1966;112:967-81.
5. Abrams R, Taylor MA. Catatonia, a prospective clinical study. *Arch Gen Psychiatry* 1976;33:579-82.
6. Altshuler LL, Cummings JL, Mills MJ. Mutism: review, differential diagnosis, and report of 22 cases. *Am J Psychiatry* 1986;143:1409-14.
7. Sbrigho R. The amytal interview in emergency and psychiatric settings. *Hosp Physician* 1984;22:91-9.

Source of Support: Nil. **Conflict of Interest:** The cases were presented as a poster presentation in the 62th Annual Conference of Indian Psychiatric Society, held at Jaipur, in January, 2010.