Dissociative Motor Disorder

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ABSTRACT
Conversion disorders are more prevalent in childhood and adolescence, especially in females. They are usually associated with stressors and symptoms usually reflect a means to avoid the stressor, or also with a primary and secondary gain. This case report involves a similar situation where a young girl was treated successfully with diazepam, therapeutic nerve conduction study, and behavioral psychotherapy.

Key words: Conversion, psychotherapy, therapeutic nerve conduction study

INTRODUCTION
Conversion disorder has one or more symptoms that affect voluntary motor or sensory function suggesting a neurological or other medical condition, but they are inconsistent with known neurological or musculoskeletal pathologies. Individuals with conversion disorder do not intentionally produce or feign their symptoms. Instead, the symptoms are due to an unconscious expression of a psychological conflict or need. The symptoms are often reinforced by social support from family and friends or by avoiding underlying emotional stress. The symptoms of patients with conversion disorder can be debilitating and include paralysis of one or more limbs, ataxia, tremors, tics, and dystonia. Many other names are used to describe this disorder are functional gait disorder, hysterical paralysis, psychosomatic disorder, conversion reaction, and chronic neurosis. There might be associated primary and secondary gains which act as maintaining factors. The disorder is more common in adolescence than in childhood. Despite conversion disorders long-documented history, the condition remains poorly understood and difficult to diagnose. It is often confused with other psychological disorders conversion disorder, remain diagnostic challenges for the clinicians. The prompt identification of these patients is very important.

CASE REPORT
A 17-year-old female coming from MSES who was premorbidly maintaining well came with complaints of asymmetrical repetitive flickering like movement of the right hand which started on the day of her 12th grade board exams. She was observed to have reduced sleep since 1 week before her exams and had relatively less communication with family members. On the day of her exams, by the time she got the question paper her whole of her right arm started having repetitive movements which continued up till the end of the exam. She also reported experiencing reduced sleep and emotional stress due to exams. After stabilization of her condition, she was treated with diazepam, behavioral psychotherapy, and therapeutic nerve conduction study. The symptoms started to resolve after a few sessions of therapy, and she was able to attend the remaining exams. Her condition improved significantly after the treatment, and she was able to continue with her studies. The patient was monitored for a few months after the treatment, and her condition remained stable.
flickering movement vigorously, and she had to support her right arm with the left to write the exam and had come out of exam hall without completing the exam. Within a few days, the abnormal movements had progressed to her right leg. She did not attend the remaining exams. Informant said that she use to have crying spells and appear sad most of the time as she had not given the exams. The patient visited a neurologist. She was treated with promethazine and trihexyphenidyl neuroimaging was done which was found to be normal. She showed some improvement after 20 days, but she was not completely resolved, on the day before the day of admission, she developed shivering over her whole body and was admitted to the Intensive Care Unit. It was not associated with loss of consciousness, no urine or fecal incontinence, no frothing from the mouth, no tongue biting, and no up rolling of eyeball. Electroencephalogram computed tomography and magnetic resonance imaging brain were done and were found to be normal. She was referred here for further management. On repeated interview, it was found that she was an above average student in her class and that her family had too much expectation from her. She also said that her younger sister was always given more attention by her mother. Her episodes were provoked when asked to write or hold a pen with her right hand, also when she was asked to walk without assistance. She was also observed to flex her right toe while walking and during stay in the hospital she was observed to be having a sudden onset of asymmetrical repetitive jerky movements of bilateral legs. She used to report that her episodes could not be stopped by voluntary effort. General physical examination and systemic examination did not reveal any abnormality. Routine hemogram, renal function test, liver function test blood sugar, lipid profile, and thyroid function were found to be normal. Video Electroencephalogram (EEG) was done was found to be normal.

The patient was prescribed diazepam 4 mg per days and after 2 days it was increased to 6 mg per day, she showed gradual improvement. She was started on supportive psychotherapy sessions. There was a total of five psychotherapy sessions. On the initial days of sessions, her symptoms got aggravated during the sessions and session had to be stopped in between. After few attempts, the patient had ventilated to us how her mother gives less importance to her when compared to her younger sister who is 6 years younger to her. The patient had also said that from her toddler stage till 10th standard she was living with her paternal grandmother and father, and now she moved to a different house along with her parents. The patient was first reassured regarding the management of her symptoms. Her parents were also included in the sessions and her issues with her mother were discussed. The patient had gradually started walking without difficulty and frequency of abnormal movements had reduced. As per the suggestion of the pediatric neurologist therapeutic nerve conduction study was done. After that procedure, patient showed marked improvement and her abnormal movements had stopped. Patient was observed for few more days. Diazepam was tapered and stopped within a week and had been stable at the time of discharge. Patient came for a follow-up after 2 weeks, and she had been maintaining well.

DISCUSSION

The clinical picture is indicative of Dissociative Motor Disorder F44.4 according to ICD 10. After taking a detailed history, it was clear that her parents were giving her more pressure to attain high marks in board exam. During interview whenever a patient was asked to hold a pen or to write her symptoms increased. Patient was started on therapy sessions as well as low-dose diazepam. In the sessions, possible causes of these symptoms were discussed, and she was encouraged to hold the pen and write. Her parents were also psychoeducated about the psychosomatic nature of the symptoms and advised to encourage her for a symptom-free lifestyle. They were also given an instruction not to pay attention to her complaints of physical nature. Psychotherapy sessions were started in which all her stressors were therapy discussed. After 2 days, patient was advised a therapeutic nerve conduction study.

In this, patient was explained to her that if there is any problem in her nerves, it will be recorded in that study, along with that dose of diazepam was also increased to 6 mg. After the study, patient showed a dramatic improvement in her symptoms. She was able to write as well as able to walk without any help.

Failure of treatment in dissociative disorders occurs mostly when we cannot identify the primary stressor or gain. By taking proper history and early identification of the stressor, dissociative disorders can be managed without any difficulty. There are case reports where dissociative disorders are managed alone with therapy sessions, and the patient is taught to how to deal with stressful situations.

Nerve conduction study is a diagnostic test to evaluate the function, i.e. the electrical conduction of motor or sensory nerve of the human body. It can also be done along with needle electromyography to measure both nerve and muscle function. In this, the study is performed by electrical stimulation of a peripheral nerve and recording of a muscle supplied by this nerve. The time taken for electrical impulses
to travel from the stimulation to the recording site is measured.\[10\] In this patient, this procedure was well explained to the patient, and she showed marked improvement. Patient came for regular follow-up for therapy sessions.

**CONCLUSION**

Conversion disorder, somatoform disorder, and malingering always remain a diagnostic challenges for the clinicians. The prompt history taking, identification of stressors, use of appropriate and validated physical examination manoeuvres, and coordination of care and information exchange between all family members and medical team may facilitate the expeditious care of these patients in a cost-effective manner.\[9\] Psychogenic symptoms should be treated using suggestions, patience, and reassurance.\[11\] Early recognition of a conversion disorder will limit unnecessary tests and medications. The quality of doctor-patient relationship can influence outcome. The existing literature supports a multidisciplinary treatment approach, with specific interventions, such as cognitive behavior therapy for cognitive restructuring and psychodynamic therapy for addressing symptom connections to trauma and dissociation.\[12\]

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**Conflicts of interest**

There are no conflicts of interest.

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