



Morbidity of Psychogenic Movement Disorders in Children

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ABSTRACT

Objective: To assess the morbidity of psychogenic movement disorders (PMDs) in children.

Background: Pediatric somatoform disorders, which include PMDs, are often regarded as benign because a majority of children improve after a short symptom duration; however, PMD morbidity has not been well studied.

Methods: Retrospective chart and video review of all children (<18 years) diagnosed with PMD in our clinic.

Results: 22% of children with PMDs had one or more surgeries for symptoms eventually determined to have no identifiable organic basis. 80% of patients received medications for a presumed organic movement disorder. 24% of patients were homeschooled because of a PMD.

Conclusions: PMDs are associated with significant morbidity, in part due to ineffective and risky therapeutic interventions. Prompt and correct PMD diagnosis may prevent unneeded procedures, thereby lessening morbidity.

INTRODUCTION

Psychogenic movement disorders (PMDs) are a type of somatoform disorder in which psychological stressors unconsciously produce abnormal movements.

Adults with PMDs have levels of disability and impaired quality of life on par with those who have Parkinson's disease,¹ but pediatric somatoform disorders are generally considered to be benign based upon reports that symptoms remit in between 85 and 97% of children with supportive care.² The negative repercussions associated with childhood-onset PMDs, however, have not been formally assessed.

METHODS

We reviewed the medical records of all 54 children (<18 years), 42 girls and 12 boys, diagnosed in the Baylor College of Medicine Movement Disorders Clinic with a PMD between 1988 and 2008. Video recordings were also reviewed to confirm clinical findings as needed.

RESULTS

Population The mean age at symptom onset was 14.2 years (\pm 2.11, range 7.6-17.7 yrs.), and the mean symptom duration preceding evaluation was 11 months (\pm 12, range 0.5-48 m.).

Morbidity School absences related to PMDs were documented in 27 (50%) children. At the time of our evaluation, 13 (24%) patients were being homeschooled because of a PMD. In other patients, school attendance was maintained but with concessions; for example, one child was learning Braille because of comorbid psychogenic blindness.

Forty-three (80%) patients received medications for a presumed organic movement disorder prior to the diagnosis of a PMD. Listed in order of decreasing frequency, the most commonly used medications were antispasmodics, antiepileptics (including primidone), anticholinergics, levodopa, antiadrenergic, dopamine receptor-blocking agents and botulinum toxin. Three patients received oral or intravenous steroids, 1 received intravenous immunoglobulin infusions, and 1 child received tetanus immunoglobulin.

Twelve (22%) children had a total of 17 surgeries for symptoms related to their PMD or for associated symptoms eventually determined to have no identifiable organic basis. Procedures directly attributable to PMDs included:

- ulnar nerve transposition for arm stiffness and finger curling due to hemidystonia
- shoulder stabilization for painful arm posturing due to bibrachial dystonia
- 3 surgeries for painful thumb posturing due to bibrachial dystonia
- bilateral ocular surgeries for misalignment due to convergence spasm
- 2 arthroscopic knee explorations for pain associated with hemidystonia
- percutaneous endoscopic gastrostomy for dysphagia due to cranial dystonia
- Port-A-Cath placement for generalized dystonia and myoclonus attributed to Lyme disease

Surgeries presumably designed to relieve nonmotor symptoms associated with PMDs were:

- 4 surgeries for abdominal pain
 - Nissen fundoplication
 - Appendectomy
 - 2 cholecystectomies
- sinus surgery for chronic headache

DISCUSSION

Disability is difficult to quantify in a retrospective study such as ours; however, nearly one-fourth of our population was being homeschooled explicitly because of a PMD, a rate over 10 times higher than the national average.³ An alarming 23% of children in our cohort underwent 1 or more surgical procedures for complaints related to a PMD or for associated symptoms without an identifiable organic basis. We suspect that many physicians are disinclined to diagnose a PMD due to concerns that a more serious organic movement disorder might be overlooked and go untreated. Physician apprehensions are partly fueled by older studies which found that approximately one-third of patients diagnosed with conversion disorder had an organic medical illness capable of explaining their symptoms, although more recent studies show less alarming rates of misdiagnosis, in the range of 4%.⁴

Certainly, diagnostic sedulity is applaudable and physician fears are understandable, yet our study illustrates how medically unexplained symptoms may themselves lead to ineffective and risky therapeutic interventions. Accordingly, prompt and correct diagnosis of a PMD has the potential to prevent or abort unnecessary procedures and thereby lessen patient morbidity. In addition, since a PMD can be the first indication that a child is struggling with depression, anxiety or a serious psychosocial problem, prompt diagnosis would facilitate early treatment of comorbid psychiatric disease.

REFERENCES

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