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Long-term prognosis of patients with psychogenic movement disorders

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Abstract

Psychogenic movement disorders (PMD) are hyper- or hypokinetic movement disorders associated with underlying psychological or psychiatric disorders. Structured telephone interview was administered to 228 patients with PMD seen in our clinic between 1990 and 2003. The mean age of the subjects was 42.3±14.3 years (range 14–70 years), mean duration of symptoms was 4.7±8.1 years (range 2–14 years), and mean duration of follow-up was 3.4±2.8 years (6 months–12 years). Improvement of symptoms was noted in 56.6% patients; while 22.1% were worse, and 21.3% remained the same at the time of follow-up. In this longitudinal study of patients with PMD we found that indices of strong physical health, positive social life perceptions, patient's perception of effective treatment by the physician, elimination of stressors, and treatment with a specific medication contributed to a favorable outcome.

Keywords: Psychogenic movement disorders; Involuntary movements; Non-organic movement disorders

1. Introduction

Since the initial description of 'Hysteria' by Charcot, several neurologists subsequently described neurologic symptoms in the setting of underlying psychiatric or psychological problems [1]. The various eponyms for psychogenic disorders include Briquet's syndrome, non-organic illness, medically unexplained symptoms and functional disorders [2,3]. The term psychogenic, first introduced by Robert Sommer in 1894, preferred by the authors, means 'originating in the mind or in mental or emotional processes; having a psychological rather than a physiological origin', although various definitions have been given in the literature [4].

Psychogenic movement disorders (PMD), characterized by abnormal slowness or excessive movements or postures not directly attributable to a lesion or dysfunction of the nervous system, are derived primarily from psychological or psychiatric causes.

Fahn and Williams [5] classified PMD into four categories:

(A) *Documented PMD*: Documented PMD includes those patients who have a complete resolution of PMD following psychotherapy, psychological suggestion by the physician, physiotherapy, or by administration of a placebo with suggestion, or the patient must be witnessed as being free of symptoms when left alone, supposedly unobserved.
(B) *Clinically established PMD*: Clinically established PMD is inconsistent over time, or incongruent with the typical presentation of a classical movement disorder. In the presence of either of the above, the patient must have any of the additional manifestations including other neurological signs, multiple somatizations, obvious psychiatric disturbance,

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disappearance of the PMD with distraction, excessive (almost deliberate) slowing.

(C) *Probable PMD*: Probable PMD includes patients with incongruous and inconsistent movements in the absence of any of the other features listed in category B to support the diagnosis of PMD, and patients with a movement disorder which is consistent and congruent with a classical movement disorder, but have other features such as disappearance of the movement with distraction, or other psychogenic neurologic disorders, and multiple somatizations.

(D) *Possible PMD*: Possible PMD is a movement disorder with clinical features of PMD occurring in the presence of an emotional disturbance.

These disorders categorized as either hyper- or hypokinetic, usually present in the setting of underlying psychological or psychiatric co-morbidities [6]. We have used telephone interview, retrospective chart review, and other methods to assess the relationship between underlying psychiatric factors, other determinants, and the long-term prognosis of PMD.

Table 1
Demographic information on patients with PMD

	N	*n*	%
Demographic information			
Number of patients (1990–2003)	12,625		
Patients with PMD diagnosis		517	4.1
Patients included in this FU study	228		
Male		62	27.2
Female		166	72.8
Initial visit (yr)			
Age		42.3 ± 14.3	
Duration of symptoms		3.4 ± 2.8	
Employment status	226		
Employed		75	33.2
On disability		68	30.1
Unemployed		9	4.0
Medically retired		2	0.9
Sick leave		1	0.4
Health-related occupation	225	30	13.3

2. Methods

Two hundred and twenty-eight patients with a diagnosis of PMD seen in the Baylor College of Medicine Movement Disorders Clinic between 1990 and 2003 were included in this study. As a first step in obtaining the most complete follow-up data, letters requesting participation in a telephone survey and in obtaining updated contact information were sent to 517 patients in the clinical database with the diagnosis of PMD. We also used other means to contact the patients, including white pages, Internet; people search engines, as well as telephone operator assistance. A total of 228 patients with verifiable contact numbers and phone numbers were included in this study. Once the contact information was obtained, we conducted a structured telephone interview including the emotional index of the McMaster's Health Index Questionnaire [7,8]. We also extracted data from a chart review and this data was used if patient refused an interview (Table 1). Patients were categorized according to the Fahn and Williams's criteria for PMD [5].

Statistical analysis was performed using chi-square, and spearman's rho on ordinal and nominal variables. ANOVA was performed for continuous variables. Given the retrospective nature of examining the long-term outcome of patients with PMD, stepwise logistic regression modeling was used. Furthermore, the backwards approach initially identified all predictors, and subsequently, the least significant predictors were eliminated at each step of the logistic model until all included predictors were statistically significant at the $p = 0.05$ level. All analyses were carried out using SPSS v11.0.1 [9].

3. Results

Out of a total of 12,625 patients seen in our movement disorders database, 517 (4.1%) were given a diagnosis of PMD. Their predominant movement disorders were categorized as follows: 211 (40.8%) tremor, 208 (40.2%) dystonia, 88 (17.0%) myoclonus, 22 (4.3%) tics, 20 (3.9%) gait disorder, 16 (3.1%) parkinsonism, 7 (1.4%) dyskinesia, and 3 (0.6%) chorea; 38 (7.3%) had more than one form of PMD. In this study we included 228 patients with PMD in whom we were able to verify the contact information, 122 (53.5%) and who completed the telephone interview; chart review was used to collect data in the rest. To evaluate any potential of sampling bias as it directly relates to long-term outcome, we conducted additional analyses comparing those patients who participated ($n = 122$) to those who refused the follow-up interview ($n = 107$). The results suggest that the two groups were similar, although those who were willing to provide follow-up information were more likely to express somatic complaints, co-existing psychiatric/medical conditions, and perceived secondary gain.