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Is physical disease missed in patients with medically unexplained symptoms? A long-term follow-up of 120 patients diagnosed with bodily distress syndrome

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ABSTRACT

Objective: Bodily distress syndrome (BDS) was recently introduced as an empirically based, unifying diagnosis for so-called medically unexplained symptoms and syndromes. BDS relies on a specific symptom pattern rather than on a lack of objective findings, which may increase the risk of overlooking physical disease. We investigated whether physical disease was missed in the first patients diagnosed with BDS.
Method: The study was a register-based follow-up study of 120 patients diagnosed with BDS at a University Clinic from 2005 to 2007. Median follow-up time was 3.7 years. We used data containing all diagnoses from inpatient, outpatient and emergency admissions supplied by systematic review of hospital records. Medical specialists evaluated all cases of suspected overlooked physical disease.
Results: According to registered diagnoses, none of the 120 patients had been misdiagnosed with BDS. In five cases [4.2% (95% confidence interval: 1.4–9.5)] though, we found comorbid medical problems that had not been taken properly care of alongside BDS management. These were disc protrusion, degeneration and prolapsus, hip osteoarthritis, anemia and calcific tendinitis.
Conclusion: The BDS symptom pattern reliably identified patients with multiple medically unexplained symptoms referred to tertiary care. Nevertheless, differential diagnostics remains important in order to identify comorbid medical problems that require additional treatment.

1. Introduction

Patients with so-called medically unexplained symptoms (MUS) challenge health professionals [1,2]. For decades, there has been an ongoing discussion on the degree of medical examinations needed to exclude physical disease in these patients [3,4]. In 1965, Slater called the diagnosis of hysteria "a source of clinical error" [5], based on his follow-up study showing that organic disease had been overlooked in a great share of patients [6].

Decades later, physicians still fear to miss physical disease [1,2,7], and case reports indicate that organic conditions are still misdiagnosed as "functional" [8–12]. However, a number of follow-up studies suggest that the risk of overlooking physical disease in MUS patients is limited, with the number of misdiagnoses rarely reaching 5% (Table 1) [13,16,18,22].

Nevertheless, physicians often continue to carry out medical examinations, procedures and operations even in patients with multiple and chronic MUS; generally with an unsuccessful outcome [3,7] and with a risk of iatrogenic harm [1,24,25]. Current guidelines recommend a shift from diagnostic procedures to symptom management [26], and evidence suggests that MUS can be treated effectively [27,28].

Recently, a new diagnostic category for patients with MUS was proposed: bodily distress syndrome (BDS) [29,30]. This novel, empirically based diagnosis is based on a symptom pattern and hence positive diagnostic criteria, rather than on pure lack of clinical and paraclinical findings. Although it does not require specific cognitive or behavioral features, BDS has been shown to encompass both current diagnostic categories of "medical" functional somatic syndromes and "psychiatric" somatoform disorders [29]. BDS includes a multiorgan subtype and four single-organ subtypes [29] and allows both medical and psychiatric comorbidity.

The BDS diagnosis has been used in recent clinical trials [31,32] but is not yet implemented more widely in clinical practice. Both patients and physicians may be concerned that the focus on positive diagnostic criteria, rather than on exclusion of organic diseases, and the fact that diagnoses from several medical specialties are "lumped" into one diagnostic category might result in an increased rate of overlooked physical diseases. In addition, patients with multiorgan type of BDS are often very complex patients that suffer from comorbid medical and psychiatric conditions. Often numerous diagnostic procedures have revealed minor pathology or positive clinical findings that may account for some of the experienced symptoms. The simultaneous management of both BDS and comorbid medical and psychiatric problems is challenging.

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Table 1
Overview of follow-up studies in unexplained conditions

Author	Years of diagnosis	Follow-up duration (months)	Symptoms/Diagnosis	Setting	Misdiagnosed/ Followed up[a]	Misdiagnosed (%)[a]
Wilson [13]	1986–1989	38.5 (mean)	Chronic fatigue syndrome characterized by chronic persisting or relapsing fatigue, neuropsychiatric impairment and impaired cell-mediated immune function	Immunopathology and infectious diseases Tertiary care Outpatients	2/103	1.9 [0.2–6.8]%[b]
Couprie [14]	1982–1989	54 (median)	Conversion disorder other than pseudoseizures	Neurology Tertiary care Inpatients	2/56	3.6 [0.4; 12.3]%[b]
Walczak [15]	1991–1993	16 (mean)	Psychogenic nonepileptic seizures	Neurology Inpatients	0/51	0 [0–7.0%]%[c]
Rief [16]	1991	24	Somatization disorder according to The *Diagnostic and Statistical Manual* of Mental Disorders *(DSM)*, 3rd edition, revised	Psychosomatic medicine Tertiary care Inpatients	2/29	6.9 [0.8–22.8]%[b]
Mace [17]	1978–80	117	Conversion disorder	Psychiatry Tertiary care Inpatients and outpatients	11/75	14.7 [7.6–.24.7]%[b]
Crimlisk [18]	1989–1991	72 (mean)	MUS subtype: motor symptoms	Neurology Secondary and tertiary care Inpatients	3/64	4.7 [1.0–13.1]%[b]
Binzer [19]	1992–1995	44 (mean)	Motor conversion disorder other than pseudoseizures	Neurology Secondary and tertiary care Inpatients	0/30	0 [0–11.6]%[c]
Moene [20]	1991–1996	29	Motor conversion disorder	Neurology and psychiatry Secondary care Inpatients	9/85	10.6 [5.0–19.2]%[b]
Schuepbach [21]	1986–1987	60	"Psychogenic disorders" in the presence of physical symptoms suggesting a general medical condition	Psychosomatic medicine Tertiary care Inpatients and outpatients	2/148	1.4 [0.2–4.8]%[b]
Carson [22]	1997–1998	8	MUS defined as: neurologic symptoms "not at all" or only "somewhat" explained by organic disease	Neurology Secondary care Outpatients	0/66	0 [0–5.4]%[c]
Stone [23]	2002–2004	18	MUS	Neurology Secondary and tertiary care Outpatients	5/1030	0.5 [0.2–1.1]%[b]

Results of follow-up studies on similar groups of patients as presented by Stone et al. [23] with the addition of a few relevant studies from nonneurological settings.
[a] Number misdiagnosed=(misdiagnoses+death attributable to misdiagnosis)/all patients followed up (alive or dead).
[b] 95% CI.
[c] One sided, 97.5% CI.

The aim of the present study was to follow the first 120 patients diagnosed with BDS in order to examine how often a physical disease was missed and/or not managed properly in these patients during the following years. We hypothesized that the bodily distress approach would not lead to inflated rates of overlooked physical disease and that less than 5% of the patients would be misdiagnosed.

2. Methods

2.1. Design and study population

We followed 120 Danish patients previously enrolled in a randomized, controlled treatment trial of group-based cognitive–behavioral therapy for BDS from 2005 to 2007 [32] (clinicaltrials.gov, NCT00132197). To participate in the trial, the patients had to be 20–45 years old, of Scandinavian origin and had to have a chronic (i.e., for at least 2 years of duration) BDS of multiorgan type that requires MUS from minimum three of four organ systems [30]. Patients with comorbid physical (e.g., diabetes, asthma) and mental (e.g., anxiety, depression) illnesses were included; however, those with severe psychiatric comorbidity (e.g., psychosis, bipolar disorder) were excluded from the trial. Moreover, pregnant women and patients involved in litigation were excluded [32].

Prior to inclusion for the clinical trial, patients underwent a comprehensive biopsychosocial assessment at the Research Clinic for Functional Disorders and Psychosomatics, Aarhus University Hospital. Assessments were conducted by a senior resident in psychiatry or one of two consultants in psychiatry, and all available medical records had been reviewed beforehand. At assessment, the psychiatric interview Schedule for Clinical Assessment in Neuropsychiatry [33], which includes an extensive section of physical symptoms, was carried out. This was followed by a physical and neurological examination and a laboratory screening battery. If an undiagnosed medical condition was suspected, which was the case in a few cases only, a relevant medical specialist was consulted or further diagnostic tests made before the person was considered eligible for participation.

3. Materials

We obtained register data from the nationwide National Patient Registry, where all admissions to general hospitals and ambulatory care in Denmark are registered [34,35]. For each of the 120 patients' contacts to inpatient, outpatient and emergency units at Danish general hospitals from the time of patients' assessment until December 31, 2009, we obtained date, clinical department and the ICD-10 Classification of Mental and Behavioural Disorders diagnostic code of the patients' main conditions [36]. Since we did not have access to primary care records, only diagnosis made in secondary and tertiary care were obtained. The follow-up period ranged from 2.9 to 4.7 years with a median of 3.7 years [interquartile range (IQR): 3.2–4.1 years].

When needed (cf. 2.3 Methods), all available patients' hospital records were obtained as a supplement to the data extraction. The study was approved by the Danish Data Protection Agency and the National Board of Health.