General Hospital Psychiatry 35 (2013) 134–140

Contents lists available at SciVerse ScienceDirect

General Hospital Psychiatry

journal homepage: http://www.ghpjournal.com

Psychiatric symptoms in patients with multiple sclerosis

Gökhan Sarısoy, M.D. [a,*], Murat Terzi, M.D. [a], Kübra Gümüş [b], Ozan Pazvantoğlu, M.D. [a]

[a] Ondokuz Mayis University School of Medicine Samsun/Turkey
[b] Health Services Vocational School, Ondokuz Mayis University Samsun/Turkey

ARTICLE INFO

Article history:
Received 11 June 2012
Revised 8 October 2012
Accepted 17 October 2012

Keywords:
Multiple sclerosis
Psychiatric symptoms
Neurological disability

ABSTRACT

Objectives: This study was intended to identify general psychiatric symptoms in multiple sclerosis (MS) patients and to determine the distribution of these psychiatric symptoms by type of MS and degree of disability.

Methods: One hundred fifty-two volunteers, 76 MS patients and 76 healthy controls, matched in terms of age, gender, marital status, years spent in education and income, were included. Psychiatric symptoms were measured using the Symptom Checklist-90-R, Beck Depression Inventory, State–Trait Anxiety Inventory, Pittsburgh Sleep Quality Index, Padua Inventory, Rosenberg Self-Esteem Scale and Eating Attitude Test. Degree of disability was determined using the Expanded Disability Status Scale (EDSS). In addition to being compared between the patient and control groups, scale scores were also compared between groups established on the basis of relapsing–remitting or progressive forms of MS, neurological disability and ambulatory ability. Correlations were determined between EDSS scores and psychiatric scale scores.

Results: In addition to symptoms of depression, anxiety and sleep impairment in MS patients, we also determined that less studied symptoms such as somatization, obsession, compulsion, interpersonal sensitivity, anger–hostility, phobic anxiety, paranoid ideation, psychoticism, low self-esteem and distorted eating attitudes were also more frequent compared to the healthy controls. Some symptoms were also more prevalent in progressive MS patients compared to relapsing–remitting subjects. Symptoms increase as degree of disability rises and ambulatory capacity declines.

Conclusion: Depressive, anxious and sleep impairment symptoms are not the only ones seen in MS patients; other psychiatric symptoms are also common. Further studies are needed to investigate the frequency and causes of these little-investigated symptoms. As seen in patients with a progressive course and greater neurological disability, more psychiatric symptoms develop in patients with more severe disease.

1. Introduction

Psychiatric studies of multiple sclerosis (MS) patients frequently concentrate on depression. The lifetime risk of depression in these patients exceeds 50% [1]. Studies in the field of depression in MS patients are spread over a wide spectrum, involving the treatment of depression and the correlation between it and fatigue, suicide, anxiety, brain lesions, cognitive impairment, coping style and social support [1,2]. Depression is followed by studies on sleep impairment [3,4] and anxiety [5,6]. Depression, anxiety and sleep studies take the form of determining either symptom severity (with the help of scales) or, less frequently, the diagnosis of relevant Axis I disorders [1–8]. These publications show that psychiatric symptom studies in MS patients focus on only a few symptoms, such as anxiety, depression and sleep [9]. The number of studies investigating psychiatric symptoms in MS patients over a broad scale is limited. Using the Neuropsychiatric Inventory, Diaz-Olivarrieta et al. [10] determined neuropsychiatric symptoms in 95% of patients. Studies [6,9,11–17] have shown that symptoms such as dysphoria, agitation, somatization, irritability, apathy, psychosis, euphoria, disinhibition, hallucination, obsession, compulsion, interpersonal sensitivity, phobic anxiety, social anxiety, health anxiety, generalized worry, paranoid ideation and distorted eating attitudes can also appear in MS patients.

Types of MS based on clinical course are described as follows in the literature [18] — Relapsing–remitting (RR) MS: The consensus definition consists of clearly defined disease relapses with full recovery, or with sequelae and residual deficit upon recovery, and periods between disease relapses characterized by a lack of disease progression. Primary-progressive (PP) MS: The consensus definition is disease progression from onset with occasional plateaus and temporary minor improvements allowed. Secondary-progressive (SP) MS: The consensus definition is an initial RR disease course followed by progression with or without occasional relapses, minor

* Corresponding author. Ondokuz Mayis University School of Medicine, Postal address: Tıp Fakültesi Psikiyatri A.D. Samsun/Turkey. Tel.: +90 362 3121919/3777; fax: +90 362 4576041.
E-mail addresses: gokhansarisoy@gmail.com (G. Sarısoy), mterzi@omu.edu.tr (M. Terzi), kubragumus86@hotmail.com (K. Gümüş), ozanpazvantoglu@gmail.com (O. Pazvantoğlu).

0163-8343/$ – see front matter © 2013 Elsevier Inc. All rights reserved.
http://dx.doi.org/10.1016/j.genhosppsych.2012.10.011

remissions and plateaus. Relapsing-progressive MS: There is no consensus definition. Progressive-relapsing MS: The consensus definition is progressive disease from the onset, with clear acute relapses, with or without full recovery, and periods between relapses characterized by continuing progression.

We encountered no studies in the literature investigating the correlation between psychiatric symptoms and type of MS on the basis of clinical course and degree of disability. This study was intended to identify general psychiatric symptoms in MS patients and to determine the correlation of these with type of MS and degree of disability.

2. Materials and methods

2.1. Sample and procedures

This study involved 79 MS patients applying to the Ondokuz Mayıs University Medical Faculty Neurology Clinic, Turkey, between June 2010 and June 2011 and definitively diagnosed with MS on the basis of the criteria of McDonald et al. [19] and 76 healthy volunteers matched in terms of age, sex, marital status, income and length of education. Inclusion criteria for the patient group were age over 18, literacy and willingness to participate in the study. MS patients with cognitive dysfunctions that might prevent their understanding the scales administered were excluded. Inclusion criteria for the control group were willingness to participate, literacy and the absence of any medical disease.

MS patients applying to the neurology clinic were informed about the study protocol. Those willing to participate were administered Kurtzke's Expanded Disability Status Scale (EDSS) by one of the authors, a neurology specialist, to determine levels of disability and were referred on to the psychiatry clinic on the same day. In line with the aim of this study, patients attending the psychiatric clinic were administered the Symptom Checklist-90-R (SCL-90-R), Beck Depression Inventory (BDI), State–Trait Anxiety Inventory (STAI), Pittsburgh Sleep Quality Index (PSQI), Padua Inventory (PI), Rosenberg Self-Esteem Scale (RSES) and Eating Attitude Test (EAT) for the purpose of identifying the most common psychiatric symptoms. No psychiatric interviews were performed for diagnostic purposes. Among the volunteers invited to join the control group, those under observation by a psychiatrist for a known psychiatric disorder and receiving treatment for that reason (drug or psychotherapy) were excluded. The control group was administered the scales given to the patient group. All scale and subscale scores were first compared between the patient group and the healthy controls. Scores were then compared by dividing the MS patients into RR and progressive groups. MS patients were further divided into three groups on the basis of their EDSS scores: patients scoring 0–1.5 (with neurological symptoms but not disabled=group 1), those scoring 2–4.5 (with neurological symptoms at disability level but still fully ambulatory=group 2) and those scoring 5.0–8.0 (in need of a cane, walker or wheelchair due to lack of ambulation or wheelchair dependent=group 3). These groups were then compared in terms of scale scores. Correlation between psychiatric scale and EDSS scores in the patient groups was also identified.

The study protocol was approved by the Local Ethics Committee, and all patients gave written informed consent.

2.2. Materials

2.2.1. Sociodemographic and clinical data information form

This was drawn up by the authors and enquired into age, sex, marital status, income and level of education. Age at onset of disease, duration of disease, clinical form of disease and number of attacks were also recorded on this form.

2.2.2. SCL-90-R

SCL-90-R consists of 90 items covering psychiatric symptoms and complaints, and was developed by Derogatis et al. [20]. The scale includes nine subscales. Responses are provided through a 5-point Likert-type scale. Studies regarding the relevance and reliability of the scale in Turkey have been carried out by Dağ et al. [21]. An increase in total and subscale scores indicates an increase in the individual's psychiatric symptoms and the discomfort felt due to these.

2.2.3. BDI

This scale was developed by Beck et al. [22] and is widely used in measuring depression symptom levels. The relevance–reliability of this scale for Turkey was determined by Hisli [23].

2.2.4. STAI

This is a scale developed by Spielberg et al. [24] and consists of two separate inventories of 20 questions each evaluating state and trait anxiety levels. The relevance–reliability of this scale for Turkey was determined by Öner and Le Compte [25].

2.2.5. PSQI

This self-administered questionnaire assesses quality of sleep during the previous month and contains 19 self-rated questions yielding 7 components: subjective sleep quality, sleep latency, sleep duration, sleep efficiency, sleep disturbances, use of sleep medications and daytime dysfunction. Each component is scored from 0 to 3, yielding a global PSQI score between 0 and 21, with higher scores indicating a poorer quality of sleep. Individuals with a PSQI score >5 are considered to be 'poor sleepers' [26]. Ağargün et al. found this index to be valid for the Turkish population [27].

2.2.6. PI

The PI is a 41-question measurement tool developed for the purpose of being able to evaluate the severity of obsessive–compulsive symptoms [28]. Each item provides a 4-point Likert-type measurement, and results are evaluated under five subscales: rumination, washing, control, impulses and precision. The relevance–reliability of the Turkish-language form of this scale was determined by Beşiroğlu et al. [29].

2.2.7. RSES

Developed by Rosenberg in 1965 [30], the scale consists of 63 multiple-choice questions in 12 subcategories. The first 10 items are used to measure self-esteem. We evaluated these first 10 items. High values indicate high self-esteem. The relevance–reliability for Turkey was established by Çuhadaroğlu [31].

2.2.8. EAT

Developed by Garfinkel and Garfinkel [32] as a self-report scale for the purpose of measuring anorexia nervosa symptoms, it was adapted into Turkish by Savaşır and Erol [33]. It can also evaluate attitudes toward eating of individuals without eating disorders. EAT is a multiple-choice 6-point Likert-type scale consisting of 40 items. A cutoff point of 30 has been determined. High scores indicate ineffective eating behavior. A Cronbach alpha reliability coefficient of .70 was determined from reliability analysis.

2.2.9. EDSS

The EDSS measures disability based on ambulation and neurological symptoms. It was developed by Kurtzke [34]. Scores range from 0 to 10, with 0 representing *no impairment or disability* and 10 representing *death due to MS*. Subjects scoring 0–1.5 have neurological impairment but no disability. Those scoring 2–4.5 have neurological disability but are fully ambulatory. Scores between 5.0 and 7.5 are indicative of a degree of impairment in ambulation that requires some aid (cane, walker, wheelchair). Scores above 7.5 indicate that