Psychiatric Illness in a Longterm MS Cohort

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Background

Psychiatric illness has been documented over the years in patients with MS[1,2]. Although reasons for development of such illnesses are poorly understood and are likely multifactorial, previous studies have suggested central nervous system pathology as a major contributor. Neuroimaging has suggested correlation of psychiatric disturbance with white matter disease of temporal and limbic structures[3,4].

Furthermore, psychiatric disturbance, specifically depression has been repeatedly correlated to impairment in quality of life for patients with MS[5]. Unfortunately, there is a paucity of data in the literature on longterm comorbidity of psychiatric disturbances in MS patients beyond psychiatric screens, usually collected in the early phase of illness.

Importance of understanding psychiatric illness in the MS patient includes the fact that there are effective treatments for most psychiatric disorders. Patient quality of life may be improved even if the treatment of neurological disease is limited. Furthermore, the presence of psychiatric illnesses may affect the measurement of subjective sense of fatigue and cognitive symptoms[6].

Objective

An observational study to describe the psychiatric profile of a longterm follow-up cohort of MS patients:

1. Document rates of Axis I psychopathology in cohort.
2. Correlation of measured rates of depression through detailed clinical interview with results from depression screens freely available and easily administered in clinical settings.

Method

Patients were recruited from a single center (University of British Columbia) participating in the 16 year longterm follow-up study of interferon beta-1b (Betaseron) in relapsing-remitting MS sponsored by Berlex Inc. as an independent sub-study. Given the demands of the interview process, patient exclusion criteria included those unable or unwilling to consent to discussing psychiatric concerns and those with Folstein Mini Mental Status Exam (MMSE) score of <23 on the basis of likely inaccurate historical data due to gross cognitive impairment below this cutoff score.

Patients underwent detailed clinical interviews conducted by one of the investigators (JT). The primary diagnostic tool used was the Structured Clinical Interview for DSM-IV TR for Axis I conditions (SCID-I) diagnostic interview administered in a standardized computer-based format (Computer-Assisted SCID – Clinician Version, MHS Systems). Patients were assessed for current psychiatric illnesses as per standard criteria excluding dementia and cognitive impairment (many of whom already excluded with MMSE scores <23). Due to the fluctuating nature of MS, the somatoform module of the SCID-I was not administered. As part of the detailed clinical interview, historical criteria for psychiatric disorders was elicited since the diagnosis of MS.

Following the diagnostic interview, the Centre For Epidemiologic Studies Depression Scale (CES-D) and Geriatric Depression Scale Long Form (GDS-L, 30-item scale) were administered; readily available depression screens easily administered in the course of clinical practice. Comparison for rates of depression were made between the detailed SCID result and those detected by screening instruments.

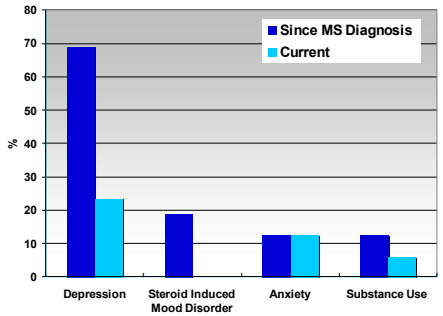
Results

33 patients were screened, and 16/33 patients met inclusion criteria (of patients excluded: 8 had MMSE <23, 5 could not complete testing due to fatigue, 4 refused a psychiatric interview). Cohort statistics included a mean age of 53 years, on average 20.5 (range 17 - 24) years since diagnosis of MS. 3:1 female-male gender ratio. EDSS scores of patients averaged 5.5, with a range of 2.0 to 8.5.

Psychiatric illness prevalence was found to be very high. Prevalence of any psychiatric illness since MS diagnosis was 75% (12/16) with a point prevalence at time of study of 37.5% (6/16). The most common lifetime psychiatric illnesses were: depression (69%, 11/16), steroid-induced mood states (19%, 3/16, hypomania and psychosis), anxiety disorders (12.5%, 2/16, phobias, panic attacks), and polysubstance abuse (12.5%, 2/16, cannabis, benzodiazepines).

Both the CES-D (conventional cutoff >16) and GDS-L (conventional cutoff >9) were equivalently able to capture approximately 75% of patients with current depressive illnesses. The screening instruments did not detect "false positives" unconfirmed by the SCID.

Rates of Psychiatric Pathology (SCID-I Data)



Summary

This long-term follow-up cohort demonstrated the high prevalence of psychiatric illness in the MS population. It suggests that a majority of MS patients over the course of an average 20 years of illness experience symptoms meeting DSM-IV TR psychiatric criteria for an Axis I condition.

Mood disturbance, specifically depressive illnesses affected a majority of this cohort meeting the inclusion criteria and was by far the most common condition. Brief depression screens such as the commonly available GDS-L and CES-D appear useful to detect a majority of these depressed patients. Both screens captured 75% of current cases of depression although the GDS-L was found to be significantly easier to administer in this population due to its simplicity and dichotomous form of questioning. Of interest, none of the patients complained of psychiatric disorder specifically correlated with interferon use, though corticosteroids were temporally correlated with hypomania and psychosis.

The data suggests continued vigilance in monitoring MS patients for psychiatric illnesses.

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