

MOOD DISORDERS AND MULTIPLE SCLEROSIS

V. Busillo^{1*}, V. Pizza², D. Cassano³, A. Busillo¹, M.R. Somma¹, A. Capasso⁴

¹Centro Sclerosi Multipla Ospedale Maria SS. Addolorata, Eboli (SA), ASL SA,

²Ospedale S. Luca, Vallo della Lucania, ASL SA,

³Distretto N. 60, Nocera Inferiore, ASL SA,

⁴Dipartimento di Farmacia, Università di Salerno, Italia.

*vincenzo.busillo@tin.it

Abstract

Psychiatric disorders in multiple sclerosis (MS) are mainly represented by mood disorders, behavioral disorders, anxiety disorders, somatization and cognitive disorders. The presence of these disorders was already observed by Charcot in his time but over the following decades this pathological condition was underestimated. Only recently, and also according to the new neurophysiopathological and neuroimaging acquisitions, MS it was reevaluated. This fact is extremely important as the role of the psychiatrist is paramount in the care of the whole of patients who are suffering from a disease that has little therapeutic resources and creates disability in life periods extremely important from the point of view of relational and productive.

Key words: Multiple Sclerosis, Psychiatric Disorders

Introduction

Mood disorders

The prevalence of major depression in MS is about 50%. Various studies show that the incidence is 3 to 10 times the rate in the general population. In MS patients are prevalent symptoms such as irritability, lack of confidence, self-depreciation (1). The study of depressive symptoms in MS presents considerable complexity due to a series of factors related to pathological conditions or the use of diagnostic tools nosographical and non-homogeneous such frequent overlap of symptoms, use of samples of patients are not similar, etc. (2). There are several hypotheses evaluated to interpret the association between depressive disorders and MS. These assumptions vary by genetic factors in immune factors than psychodynamic components such as a specific mode of reaction of the patient to a particularly debilitating disorder (depressive disorder secondary to a general medical condition). At present we do not know yet what could be the liaison between these diseases but already a few decades we know that depressive disorder is a condition aggravating the course and prognosis of the disease.

The premorbid personality of the patient certainly has an important role but this does not seem to be a particularly important element in the evolution of depressive illness, in which case endorsing the theory of localization of plaques which factor (2). Very often, symptoms such as fatigue, loss of appetite and difficulty concentrating are attributed to the MS in a specific way but very often are attributable to the depressive illness that causes no doubt a worsening of the same and the inner experience of the patient (3) and the rates of suicide in patients with MS are 30% higher than the general population, and this also contributes to the forced social isolation that the disease causes over the years (1).

We still do not know what can be the causes of the high prevalence of depression in patients with MS. We can speculate on the basis of current knowledge that there may be real organic causes but no doubt the psychodynamic aspects represent an important element in the development and chronicity of psychiatric illness. Without any doubt there is a reaction to events

(in particular poussées) in a manner that strengthens always more important in the patient's belief that he suffers from a chronic, debilitating and unpredictable in its evolution (2). Currently neuroimaging studies show a lesion load and degree of cortical atrophy more represented in MS patients with major depression and in particular, some studies show an increased presence of hyperintense lesions on MRI at the level of the arcuate fasciculus (4). And to consider that depression is particularly common in interferon therapy and this fact undoubtedly interfere in the estimation of the overall epidemiological pathology in MS patients. In this regard, however, some works show conflicting data as detected rates of depression in patients treated with interferon or glatiramer acetate similar to MS patients not treated with DMT. Within the spectrum of mood disorders is to consider also the bipolar disorder which has a prevalence in MS patients by approximately 50% greater than the general population. This fact is also affected by the use of steroids, can be attributed in a more significant major depression also to genetic factors and sex being more common in women (1).

Very frequently in patients with MS detects a psychic state which expresses improperly mental and physical well-like character and assumes euphoric. This status is present in patients with high degrees of disability at EDSS. MR images have been shown in these patients a high lesion load the frontal areas with enlargement of the ventricles, the expression of cortical atrophy (1). Such symptoms are frequently associated with disorders such as pseudobulbar PLC (Pathological Laughter and Crying), episodes of uncontrolled laughter or crying (or both) triggered by stimuli that normally would not cause that kind of emotional response (5). About 10% of MS patients are affected, with varying degrees of severity, from such symptoms. The PLC can be associated with different lesion locations: motor and prefrontal cortical structures, and numerous subcortical structures such as the thalamus, basal ganglia, bulb, pons, cerebellum.

The psychotic pathology is present in patients with MS to a lesser extent compared to mood disorders and this is probably due to the fact that this condition is related to psychopathological alterations in the gray matter while the MS is

typically a disease of the white matter . The MS patient in the absence of clear psychotic aspects of cognitive decline with greater lesion load at the level of the temporal horn (6) .

Therapy

Depressive disorder is present in a significant way in patients with MS, but often not treated or is treated inappropriately . We do not know the cause of this , it is conceivable that a reduced overall care of the patient by the neurologist who does not often having a psychiatric training staff does not use in patient management of psychiatric staff (6). Pharmacological treatment of depressive disorders is based on the use of tricyclic (often poorly tolerated by the anticholinergic side effects), SSRIs (particularly fluoxetine, sertraline), SNRIs (duloxetine in particular can also be used for the therapeutic effects for urinary disorders) , mirtazapine acting on the noradrenergic and serotonergic sense(1) . It is important to consider the use of mood stabilizers such as lithium salts, the Valproic acid and lamotrigine which currently represent the cornerstone of the real drug therapy for mood disorders . The use of lithium salts, however, must be carefully assessed in MS patients with urinary disturbances by inducing diuresis.

Psychotherapy, particularly cognitive-behavioral therapy are undoubtedly of great help in MS patients.

The treatment of bipolar disorder and in particular the manic episode involves the use of lithium, ac. Mood stabilizers such as valproic acid and benzodiazepines and neuroleptics, in particular olanzapine or quetiapine. The use of neuroleptics should be evaluated in an appropriate manner as they may aggravate their symptoms of MS such as balance disorder, coordination of movement and strength.

The PLC (Pathological Laughter and Crying) responds fairly low dose amitriptyline or dopaminergic drugs such as levodopa and amantadine.

Conclusions

Mood disorders are an extremely important component in the management and overall care of the patient with MS. This pathological condition is present already in the early stages of the disease, may be an expression of the particular reactivity of the individual to an awareness of the same in a particular period of life, but then it expresses its probably a symptom of organic lesions of MS. Mood disorders and psychiatric disorders in general must be properly addressed because their treatment is able to reduce the patient's suffering SM offering a quality of life without any doubt the best

References

1. Mood and emotional disorders in Multiple Sclerosis: a literature review. *Rev Neurol (Paris)*. 2007; 163(1):27-37 (ISSN: 0035-3787)
2. Amato MP, Ponziani G, Rossi F, Liedl CL, Stefanile C, Rossi L Quality of life in multiple sclerosis: the impact of depression, fatigue, and disability. *Mult Scler* 2001; 7:340-344
3. Colosimo C., Millefiorini E., et al. "Fatigue in MS is associated with specific clinical features" *Acta Neurology Scandinavia*, 92:353-355, 1995;
4. Davie DA., et al., "Does the extent of axonal loss and demyelination from chronic lesions in multiple sclerosis correlate with the clinical subgroup?". *Journal Neurology Neurosurgery Psychiatry* 67: 710-715, 1999;
5. Arnett P.A., Rao S.M. et al., "Relationship between frontal lobe lesions and Wisconsin Card Beatty W.W., "Cognitive and emotional disturbances in multiple sclerosis" *Neurological Clinic*