

PAIN SYNDROMES IN PATIENTS WITH MULTIPLE SCLEROSIS

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SUMMARY – Multiple sclerosis is a disease of the central nervous system, beginning most often in late adolescence and early adult life, and expressing itself by recurrent attacks of spinal cord, brainstem, cerebellar, optic nerve and cerebral dysfunction, the result of foci of myelinated fiber destruction. In this retrospective study, 280 patients hospitalized at University Department of Neurology during the last three years were evaluated. Study results showed 104 (60%) patients to have suffered either acute or chronic pain syndrome at some time during the course of disease. Six (2.1%) patients with acute pain syndromes had episodes of paroxysmal pain attacks in the trigeminal nerve distribution. Chronic pain syndromes, present for a mean duration of 4.2 years occurred in 154 (55%) patients and included headache in 38%, cervical and lumbosacral syndrome in 58%, and painful leg spasms in 4% of study patients.

Key words: *Multiple sclerosis – complications; Multiple sclerosis – drug therapy; Pain – etiology; Pain – drug therapy; Quality of life*

Introduction

Multiple sclerosis (MS) is a disease of the central nervous system (CNS), beginning most often in late adolescence and early adult life, and expressing itself by recurrent attacks of spinal cord, brainstem, cerebellar, optic nerve and cerebral dysfunction, the result of foci of myelinated fiber destruction^{1,2}. The most common symptoms are weakness or numbness of a limb, monocular visual loss, diplopia, vertigo, facial weakness or numbness, ataxia and nystagmus, which may occur in various combinations³. Over a variable period, usually measured in years, the patient becomes increasingly handicapped, with an asymmetric paraparesis and obvious signs of corticospinal tract disease, sensory and cerebellar ataxia, urinary incontinence, optic atrophy, nystagmus, dysarthria and various sensory signs including

signs of paresthesias and dysesthesias^{1,2}. Although pain is not considered a typical symptom of MS, more than 50% of patients present with pain syndromes^{4,5}. Most of them do not receive appropriate treatments, as clinicians are more oriented towards controlling the immunopathogenic process of the disease than coping with symptomatic consequences of the lesion.

The aim of this study was to evaluate retrospectively the prevalence and nature of pain in MS patients.

Patients and Methods

In this study we enrolled 280 patients hospitalized at University Department of Neurology, Sestre milosrdnice University Hospital, Zagreb, during the 2003-2007 period. All eligible patients had clinically definitive MS according to McDonald's criteria and confirmed by magnetic resonance imaging (MRI) of the brain that was strongly suggestive of MS. To determine the prevalence and nature of pain in multiple sclerosis, 280 patients followed up at our Department were evaluated by chart review.

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Results

All patients enrolled in the study had clinically definitive diagnosis of MS according to McDonald's criteria. Study results showed 104 (60%) patients to have suffered either acute or chronic pain syndrome at some time during the course of disease. Six (2.1%) patients with acute pain syndrome had episodes of paroxysmal pain attacks in the trigeminal nerve distribution. Chronic

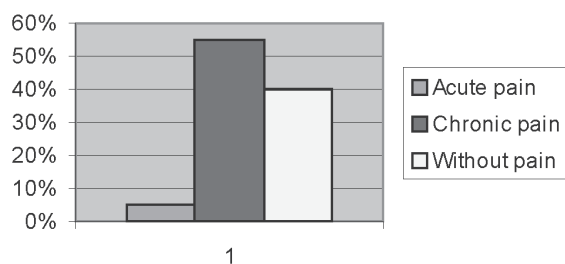


Fig. 1. Prevalence of acute and chronic pain.

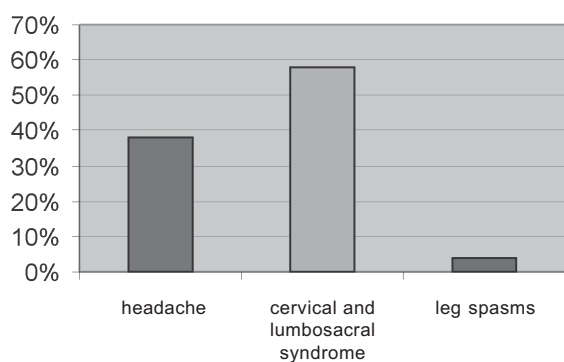


Fig. 2. Most common pain syndromes in multiple sclerosis patients.

pain syndromes, present for a mean duration of 4.2 years, occurred in 154 (55%) patients and included headache in 38%, cervical and lumbosacral syndrome in 58%, and painful leg spasms in 4% of patients (Figs. 1 and 2).

Discussion

According to previous studies, pain symptoms pose a problem in MS patients. It is an important issue since symptom control, especially pain, assumes high priorities in MS.

Pain syndromes occurred in 60% of our MS patients at some stage of the disease. In other studies, the incidence of pain syndromes was up to 70%⁶.

The most common acute pain syndromes were paroxysmal pain attacks in the trigeminal nerve distribution. There was no correlation with age, sex, and disease duration. Pain symptoms were more frequent in MS patients with higher EDSS score and spinal cord involvement.

The question is where the pain has originated from. The possible explanation includes demyelinated axons that may cause neural impulses to leak out and spread to other adjacent demyelinated fibers. If the adjacent fibers belong to the sensory pathway, these misdirected neural impulses give rise to pain⁷.

Usually, acute pain in MS is caused by abnormal conduction or short circuit along demyelinated nerve fibers. Trigeminal neuralgia is the best recognized acute pain syndrome. A multicenter cross-sectional study assessed pain in 1672 MS patients and showed trigeminal neuralgia in 2% of patients⁸. Our study results revealed nearly the same percentage of patients with trigeminal neuralgia.

Acute pain syndromes often occur at the beginning of the disease and are less common than chronic pain syndromes. The best choice for treating acute pain syndromes are anticonvulsant medications and tricyclic antidepressants. Carbamazepine is the most prescribed drug; however, gabapentin and pregabalin are currently recommended⁹. Chronic pain is a common feature of well-established MS and is usually associated with myelopathy. Therapy should be individualized for each specific pain syndrome.

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Sažetak

BOLNA STANJA U BOLESNIKA OBOLJELIH OD MULTIPLE SKLEROZE

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Multipla skleroza (MS) je kronična, demijelinizirajuća bolest za koju se dugo smatralo da ju ne prati bol. Cilj ovoga istraživanja bio je utvrditi učestalost i trajanje bolnih stanja u bolesnika s MS liječenih na Klinici za neurologiju, KB «Sestre milosrdnice». U razdoblju od tri godine obuhvatili smo 280 bolesnika. Sto šezdeset četiri bolesnika (60%) je imalo akutni ili kronični bolni sindrom. Šest bolesnika (2.1%) s akutnim bolnim stanjem imalo je paroksizmalne bolne atake u području trigeminalnog živca. Kronični bolni sindrom dijagnosticiran je u 55% (n=154) bolesnika i uključivao je razne oblike glavobolje (38%), bol u vratnom ili lumbosakralnom dijelu kralježnice (58%) te bolne spazme u 4% bolesnika. Na temelju rezultata ove retrospektivne studije vidljivo je da su akutni i kronični bolni sindromi prisutni u velikom broju bolesnika oboljelih od MS te da terapija svakog bolesnika mora biti individualizirana.

Ključne riječi: *Multipla skleroza – komplikacije; Multipla skleroza – terapija lijekovima; Bol – etiologija; Bol – terapija lijekovima; Kvaliteta života*



ANIJA MATIČEVIĆ – Hommage à Caravaggio (Vino i voće), 2007. ulje na platnu, 40x50 cm

