

MS Consult

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Neuropathic Pain in MS

Q How do I assess for and treat neuropathic pain in MS?

In multiple sclerosis (MS), pain is a common symptom; patients may experience varying forms during their disease course. One type is neuropathic pain, which is initiated or caused by a demyelinating lesion in the central nervous system.¹ It may occur spontaneously or be evoked, and it can be intermittent or steady. Given the nature of the disease course in MS, it is important to complete a pain assessment at each visit.

A patient experiencing neuropathic pain is likely to report abnormal sensations or hypersensitivity in the affected area. It is often combined with or adjacent to areas of sensory deficit.¹ This includes altered sensations such as pins and needles, numbness, crawling, or burning. The most common MS-related neuropathic pain conditions are ongoing dysaesthetic extremity pain and paroxysmal pain, such as trigeminal neuralgia and Lhermitte phenomenon.¹⁻³

Assessment. When assessing the history of neuropathic pain, it is beneficial to remember that abnormal sensory findings should be neuroanatomically aligned with a lesion site. The mnemonic OPQRST is a helpful reminder to ask about

- O**nset
- P**rovoking/**p**alliating factors
- Q**uality of the sensation
- R**adiation
- S**everity of the pain (using a scale of 0-10 can be helpful)
- T**ime when the pain occurs.

These probing questions will aid diagnosis and uncover clues on areas to pay special attention to during the examination. For example, when a patient reports numbness of both feet, the clinician might suspect a lesion in the spinal cord and then can try to determine the level during the sensory exam.

Screening tools that capture the patient

experience, such as the modified version of the Brief Pain Inventory (BPI), can assist in diagnosis as well as measure the impact of treatment.⁴

A physical assessment for neuropathic pain includes a full neurologic evaluation of motor, sensory, and autonomic systems to identify all signs of neurologic dysfunction. Attention should be paid to the possible types of negative sensory symptoms (eg, sensory loss) and positive findings (eg, paresthesia). When completing the sensory exam, the clinician can gauge pain by using a sharp object such as a toothpick. Tactile sense can be assessed with a piece of cotton, and temperature can be tested with warm and cold objects. A tuning fork can identify vibration sense. Body sensory maps, on which the clinician draws the sensory disturbance on schematic charts, can provide valuable information.

Diagnostic tests, such as MRI, can also assist in confirming the lesion of the somatosensory nervous system that explains the pain.

Treatment. Many patients who experience neuropathic pain require a multidisciplinary approach.⁵ Support from colleagues in rehabilitation can help the patient identify alternative approaches to functioning that avoid triggering or exacerbating the pain. Equipment can also maximize independence and improve quality of life. For example, a soft neck collar is often used to prevent the forward movement that triggers pain in Lhermitte phenomenon.⁶

When prescribing pain medication, it is important to understand that neuropathic pain is inadequately relieved or not relieved at all with conventional analgesics, such as NSAIDs, or opioid analgesics (eg, morphine).^{2,3}

Dysesthesias are most frequently treated with medications that are categorized as antiseizure, such as gabapentin and pregabalin. Carbamazepam and phenytoin are used as secondline therapy. Sometimes,

anti-anxiety medication (eg, duloxetine hydrochloride and clonazepam or tricyclic antidepressants, including amitriptyline or nortriptyline) can be helpful.⁷ When treating paroxysmal symptoms such as trigeminal neuralgia, antiseizure medications can be effective. Carbamazepine is often the firstline of treatment. As a secondline, oxcarbazepine, lamotrigine, and/or baclofen may be used. In some cases, a referral to neurosurgery for a procedure to reduce pressure on the trigeminal nerve is required.^{5,8}

It is also important to treat any additional symptoms that the pain may be causing, such as depression or social isolation. Referral for counseling as well as integrative health and wellness services can support the patient through a difficult time.⁵ **CR**

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