# Identifying neuropathic back and leg pain in patients with multiple sclerosis

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Introduction and aim: The aim of this study was to investigate the prevalence of nociceptive or neuropathic low back pain (LBP) amongst patients with multiple sclerosis (MS). Methods: The study was conducted on 85 MS patients with LBP with or without leg pain. PainDETECT neuropathic pain screening questionnaire (PDQ) was used to identify likely pain mechanisms. Based on the PDQ scores, participants were classified into three groups: a neuropathic pain group, a nociceptive pain group, and an unclear pain group. Hospital Anxiety and Depression Scale was used to measure depression and anxiety. The degree of disability was based on the Expanded Disability Status Scale (EDSS), whereas the severity of pain was measured using a visual analogue scale. Results: A total of 31.8% of participants (n=27) reported nociceptive pain, 32.9% (n=28) unclear, and 35.3% (n=30) neuropathic pain. Among them, patients with clear nociceptive and neuropathic LBP were selected. Patients in the neuropathic pain group had significantly higher pain intensity (t=3.569, p=0.001) and higher prevalence of anxiety (t=1.417, p0.5). There were no statistically significant between-group differences according to age (t =1.557, p=0.125), sex (t=1.51, p0.5), EDDS score (t=0.009, p=0.993), MS course (t = 1.041  p = 0.303), disease duration (t=1.250, p=0.217) and prevalence of depression (t=0.29, p0.5). Conclusion: Based on screening test results, MS patients suffer from either neuropathic or nociceptive LBP, which has implications for the choice of treatment strategy. Key words: Multiple sclerosis, low back pain, PainDETECT questionnaire.