

Distal limb discoloration in patients with Multiple Sclerosis. Case series of 41 patients



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Autonomic dysfunction (AD) is seldom recognized by patients with multiple sclerosis (MS). Orthostatic dizziness has been found in 50% of MS patients. We report 41 MS patients with distal limb discoloration with no associated vascular disease.

Objective: Description of a group of MS patients with distinctive distal limb discoloration. Correlation with MRI findings.

Methods: Lower limb discoloration was noticed in MS patients during their follow up visit. Epidemiologic data, treatment history, type of MS and disease duration were documented. Patients with concomitant disease (diabetes mellitus, vascular insufficiency) were excluded. Complete physical and neurologic exam were performed. Some patients were evaluated with arterial doppler. All patients had a brain MRI, which fulfilled the diagnostic criteria for MS.

Results: 41 patients were documented, 33 women, with a mean age of 51. Disease duration ranged from more than 10 years to 3 months. Four patients were diagnosed in the past 12 months. 76% RRMS, 21 % SPMS and 3% PPMS. 88% were currently on treatment with a disease modifying treatment. EDSS score ranged between 1.0 and 6.5, with a mean score of 4.5. All patients demonstrated distal discoloration of lower extremities; peripheral pulses were normal in all patients. Coloration did not change with leg elevation. 12% had associated dysautonomic symptoms, which included problems controlling blood pressure and heart rate. 3 patients were evaluated with arterial doppler: all were normal. All patients had an abnormal brain MRI. 75% had also lesions in their cervical spine MRI and 52% had thoracic lesions.

Demographics	
Woman	33
Caucasian	34
Hispanic	6
African American	1
Type of MS	
RRMS	29
SPMS	10
PPMS	2



Case example. 41 year old Caucasian woman who began with dysautonomic features (neurogenic syncope and difficulty controlling blood pressure) and feet discoloration 10 years before she was diagnosed with MS. Patient was evaluated in our clinic after her second clinical relapse. Radiologic and clinical findings were consistent with the diagnosis of RRMS.

Conclusions: AD can cause paroxysmal arrhythmias, syncope, neurogenic pulmonary edema and decreased ventricular ejection fraction, leading to increased morbidity and mortality. MS can involve critical areas subserving autonomic function causing interference of descending autonomic pathways during their course in the brainstem or spinal cord. Skin changes could be a manifestation of AD and may impact the quality of life in MS patients.

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