

A Case of Right Drop Foot Developing Soon after the Diagnosis of Crohn's Disease

The Editor,

Sir,

Nervous system damage may occur in the early stages of Crohn's disease and is one of the most underreported extra-intestinal manifestations despite its significant impact on quality of life and morbidity. For these reasons, early recognition of neurologic symptoms is crucial for treatment (1).

We describe here a case of right drop foot due to radiculopathy developed soon after the diagnosis of Crohn's disease.

A 17-year-old male admitted to our clinic complaining of right drop foot for 2 weeks. The patient was diagnosed Crohn's disease 2 months prior to admission and reported numbness and weakness and ankle sprain in the right foot 6 weeks after diagnosis. Physical examination revealed minimal steppage gait and paresthesia of the right L5 dermatome. According to the manual muscle testing grading system, the score for the right hip abductors, extensors and knee flexors was four while for the right ankle and toe the score was three' should replace 'were three'.

Electroneuromyographic (ENMG) nerve conduction studies were normal. Needle electromyography revealed polyphasia and decreased recruitment of motor unit action potentials in the tibialis anterior and extensor digitorum brevis and gastrocnemius muscles. Fibrillations and positive sharp waves were found in the tibialis anterior muscles. The patient's lumbar magnetic resonance imaging (MRI) was normal. Clinical and ENMG findings were consistent with a right L5 radicular involvement due to Crohn's disease.

The patient was prescribed a home exercise program comprised of progressive muscle strengthening and posture, gait and proprioceptive training. An ankle foot orthotic (AFO) device was applied.

The pathogenesis of neurogenic disorders associated with inflammatory bowel disease (IBD) has not been established and may involve diverse causes. One such neurogenic disorder is monophasic immune radiculoplexus neuropathy which may precede the appearance of digestive symptoms or develop after diagnosis (1–3).

In a population-based study of IBD including 12,476 person-years of follow-up, Figueora *et al* (2) reported that four patients were diagnosed with lumbosacral radiculoplexopathy. This pathology was found to occur late in the course of the disease, mainly during periods of bowel disease inactivity. In the current case, drop foot occurred immediately after the onset of digestive symptoms during the active period of IBD.

Foot drop is a common and distressing problem that can lead to falls and injury (4). It is characterized by the inability or difficulty in moving the ankle and toes in dorsiflexion, foot-slap during loading response and toe-drag during swing (5, 6). Electroneuromyographic, ultrasonography, computerized tomography and MRI are all useful for diagnosis (4). We used ENMG and lumbar MRI for diagnosis in our patient.

The AFO device enables individuals to walk better and more safely and to resolve complications in patients with drop foot (4, 7). Our patient had a history of ankle injury occurring after a fall due to instability. For this reason, we prescribed AFO in addition to the traditional exercise programme.

Keywords: Crohn's disease, drop foot, radiculopathy.

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