ELSEVIER

CrossMark

The Spine Journal 15 (2015) 788

THE SPINE JOURNAL

IMAGES OF SPINE CARE

Spinal cord infarction as a complication of hemodialysis

A 76-year-old man with a history of hypertension, hyperlipidemia, diabetes mellitus, and chronic kidney disease was referred because of acute onset of paraplegia shortly after hemodialysis. He experienced severe hypotension in the middle of the dialysis session and acute onset of low back pain afterward. On examination, he had a T9–T10 sensory level. Magnetic resonance imaging (MRI) revealed a longitudinal T2-hyperintense lesion extending from T8 to L1 in the center of the cord without gadolinium enhancement (Fig. 1). The lesion caused some degrees of cord expansion. On the axial images, an edematous, large T2-hyperintense central gray matter was apparent in multiple levels of the involved cord (Fig. 2). The white matter, which is more resistant to ischemia than gray matter, was not involved. This butterfly like T2-hyperintensity in the center of cord with little or no white matter involvement is consistent with moderate ischemia. With lesser amounts of ischemia, only the anterior horns of the gray matter are involved, which results in an ''Owl's eye'' appearance in axial MRIs. More ischemia will cause infarction of the gray and white matter with nonspecific T2-hyperintensity in MRI.

Fig. 1. Longitudinal hyperintense lesion (red arrows) from T8–L1 in sagittal T2 weighted magnetic resonance imaging.

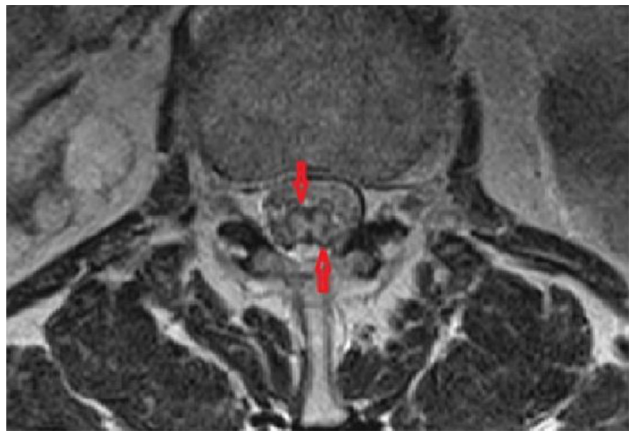

Fig. 2. Gray matter butterfly pattern of cord infarction (red arrows) in axial T2-weighted magnetic resonance imaging.

Ferdos Nazari, MD
Siamak Abdi, MD
Department of Neurology
Shariati Hospital
Tehran University of Medical Sciences
Keshavarz Blvd., Qods Street, Tehran
Tehran Province 1417863181, Iran

FDA device/drug status: Not applicable.

Author disclosures: ***FN:*** Nothing to disclose. ***SA:*** Nothing to disclose.

http://dx.doi.org/10.1016/j.spinee.2014.11.010