

## **Conference**

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## **Title**

Swinging into Trouble: A Case of Acute Spinal Cord Injury Following Golf-Induced Hyperextension

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## **Case Diagnosis**

Paraparesis due to acute spinal cord infarction after golfing

## **Case Description**

An 81-year-old male with hypertension, hyperlipidemia, and myocardial infarction presented to the emergency department with acute bilateral leg weakness, urinary incontinence, and loss of rectal tone. Symptoms began shortly after hitting golf balls for 2 hours at the driving range. CT angiogram showed generalized atherosclerosis without acute arterial occlusion. Complete spine MRI revealed cord expansion with central T2 hyperintensity at T12 and L1 without enhancement, consistent with spinal cord infarct. Possible etiologies included “surfer’s myelopathy” from hyperextension during repetitive golf swinging, inflammatory process, aortic atherosclerosis, or fibrocartilaginous embolism. Patient received steroids for possible inflammatory etiology without improvement. He was admitted with PM&R consultation for paraparesis due to T12 AIS C spinal cord injury and was eventually discharged to an acute rehabilitation facility. The cause of his spinal cord infarct was not definitive, but the onset of symptoms following repetitive golf swing made hyperextension-induced ischemia probable.

## **Discussion**

Surfer’s myelopathy is a rare, non-traumatic spinal cord injury associated with hyperextension of the back. Its name originates from cases in which young, novice surfers experience back pain followed by progressive neurological deficits. Over 60 cases have been published with this condition occurring after activities such as surfing, gymnastics, swimming, and cheerleading, but only one case reported myelopathy due to spinal cord infarction after golfing. This case report is intended to increase awareness of the various types of activities (beyond surfing alone) that can lead to hyperextension-associated injury.

## **Conclusions**

Spinal cord injury due to hyperextension has primarily been observed in surfing; however, repetitive hyperextension from other activities such as golf can cause spinal cord ischemia and infarction. Thus, spinal cord infarct should be considered as part of the differential diagnosis when hyperextension is the possible mechanism of injury.