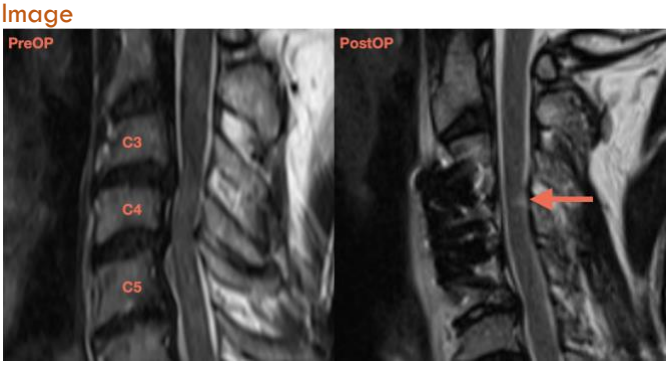
Case Report: Delayed Lower Extremity Monoplegia after Anterior Cervical Discectomy and Fusion; A Rare Care of Cervical Spinal Ischemic Reperfusion Injury

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Abstract (300 word limit)

White cord syndrome is a type of cervical spinal cord ischemia characterized by sudden neurological deterioration following surgical spinal decompression. The underlying cause is believed to be immediate relief of chronic compression on the spinal cord, triggering inflammatory response known as ischemic reperfusion injury. Neurological function decline after cervical spine decompression surgery often occurs due to direct cord injury, compressing hematoma, or hardware failure. However, loss of neurological function in the absence of these complications is extremely rare. The electronic medical record was reviewed for our case patient and pertinent data was extracted. A 49-year-old male presented in office with neck pain and symptoms of progressive cervical myelopathy: clumsiness, gait instability, and dropping things. Physical examination revealed bilateral Hoffmann's sign. An MRI of the cervical spine demonstrated severe central canal stenosis with spinal cord compression and myelomalacia at the C3-C4 level. The patient underwent a planned anterior cervical discectomy and fusion procedure from C3-C5. Intraoperative neuromonitoring revealed improvements in relevant signals compared to baseline motor-evoked potentials of the patient's extremities. Following the surgery, he reported weakness ("heaviness") in his left lower extremity. His post-operative MRI revealed white cord syndrome, characterized by an increase in the signal change of the spinal cord. This finding was consistent with ischemic-reperfusion injury of the spinal cord post-decompression. White cord syndrome is thought to be caused by reperfusion injury following surgical decompression of a previously compressed segment of the spinal cord. Surgeons should be aware of this rare complication in order to warn patients preoperatively.

Image



Recent Publications (minimum 5)

1. Cantu, Robert C.; Li, Yan M.; Abdulhamid, Mohamed M.; Chin, Lawrence S. Return to play after cervical spine injury in sports. J Current Sports Medicine Reports. 2013 Jan/Feb; 12(1):14-17.
2. Abdulhamid, Mohamed M. Motion-Preservation Interlaminar Stabilization Device for Lumbar Spinal Stenosis: Technical Aspects [abstract]. 16th Dubai Spine Conference; 2015 April 11-13; Dubai, United Arab Emirates.
3. Abdulhamid, Mohamed M.; Blaskiewicz, Donald J.; Yusupov, Igor R.; Kim, Peter D.; Moquin, Ross R. Can the Use of Copper in Spine Surgery with Instrumentation Result in a Reduced Risk of Postoperative Infections? Stage One: Efficacy of Copper Against the Growth of Escherichia Coli in Vitro [abstract]. 24th NASS Annual Meeting; 2009 November 10-14; San Francisco, CA. Abstract no. 22.
4. Abdulhamid, Mohamed M.; Blaskiewicz, Donald J.; Singla, Amit; Yusupov, Igor R.; Moquin, Ross R. The Use of Intra-Operative O-Arm © and Navigation in Odontoid Screw Placement: Advantages Over Conventional Fluoroscopy [abstract]. 2nd Intraoperative Imaging Society Annual Meeting; 2009 June 14-17; Istanbul, Turkey. Abstract no. 4.
5. Abdulhamid, Mohamed M.; Li, Yan M; Hall, Walter A. Spontaneous acute subdural hematoma as the initial manifestation of chronic myeloid leukemia. J Neurooncol. 2011 Feb;101(3):513-6.

Photograph



Biography (150 word limit)

Dr. Mohamed Abdulhamid is a board-certified neurosurgeon with expertise and interest in minimally invasive spine surgery. With a deep interest in outpatient spine surgery, he has dedicated his career to exploring safe and effective ways to perform spinal procedures in an outpatient setting, prioritizing patient's safety, comfort, and recovery. As the founder of Royal Spine Surgery, Dr. Abdulhamid has established a proactive firmly rooted in patient-centric principles. He champions an integrative approach to spine health, blending conventional and innovative methods to offer comprehensive spine care. Beyond his clinical work, Dr. Abdulhamid is an expert in medico-legal matters related to the spine, providing

invaluable insights into complex cases. His commitment to advancing spinal care, patient well-being, and medico-legal expertise distinguishes him as a respected leader in the field.

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Notes/Comments: