

Case report: Quadriplegia after Cervical Discectomy and Fusion Surgery

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Spinal cord infarction after anterior or posterior Cervical Cord Decompressive Surgery is uncommon. The existing literature generally points at ischemic events including intraoperative or post-operative hypotension, low blood perfusion, or decreased venous return. We report a single case of postoperative weakness which was followed by an incomplete quadriplegia in a patient after 3 level anterior cervical discectomy and fusion. The intraoperative somatosensory (SSEPs) and motor evoked potentials (TcMEPs) recordings were normal throughout the surgery. Upon termination of the procedure and in the recovery room patient followed commands and was freely able to move all extremities. The weakness in the upper and lower limbs ensued within 20 minutes after which progressively turned into a severe weakness of upper limbs and complete motor paralysis in the lower limbs. The emergency MRI scan was not diagnostic at that point, but the follow-up MRI scan a day after surgery demonstrated a multi-level spinal cord edema and infraction. Spinal cord ischemia should be managed aggressively to improve spinal cord perfusion. The end prognosis depends on the severity of insult to neuronal tissue.

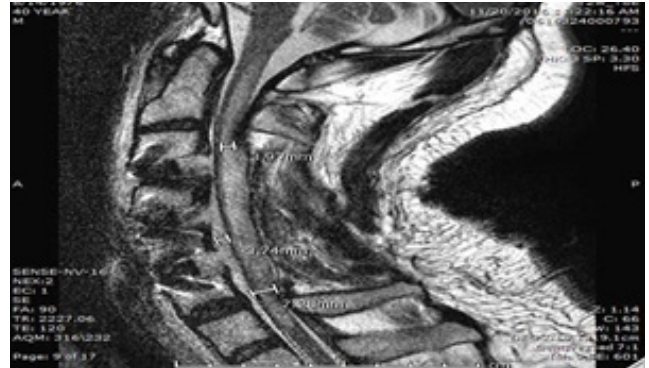


Figure: Cortical Somatosensory (SSEPs) and Transcranial Motor Evoked Potentials (TcMEPs) recordings in this patient at the baseline (pre-incision). The SSEPs were recorded after the median and posterior tibial nerve stimulations on the right (right column) and left (left column) sides. The TcMEPs were recorded from the left (left column) and right (right column) abductor pollicis (AP), adductor hallucis (AH) and deltoid (DL) muscles.

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