Spinal Cord Injury, Vertebral Artery Dissection, and Cerebellar Strokes After Chiropractic Manipulation

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A 48-year-old woman with chronic neck pain presented with a history of sudden neck pain and generalized weakness during a chiropraxis session. Neurological examination showed tetraplegia with C5 sensory level. Cervical spine CT revealed a fracture affecting C5 and C6 vertebra (Figure A-B). Cervical spine MRI confirmed spinal cord injury (Figure C). Also, bilateral vertebral artery occlusion and acute cerebellar infarction were found (Figures D-F). Bony ankylosis was found in cervical CT spine suggesting undiagnosed ankylosing spondylitis was a risk factor for spine fracture. Other neurological lesions related to chiropraxis include vertebral artery dissection, epidural hematoma and acute disk hernition\textsuperscript{1,2}.

### Appendix 1. Authors

<table>
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References


Figure. Spinal cord injury, vertebral artery dissection, and cerebellar strokes after chiropractic manipulation

Sagittal cervical spine CT revealed a fracture and intense bony ankylosis (Figures A and B). T2-weighted sagittal cervical spinal cord MRI showed a spinal cord injury (Figure C). CT angiography identified bilateral vertebral artery occlusion (Figure D). Axial diffusion-weighted imaging and FLAIR brain MRI documented cerebellar ischemia (Figure E, F).
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