Cervical Fracture: A Case Report Of A “Near-Miss” C6 Fracture

Kow RY, Ruben JK, Zaharul-Azri MZ, Low CL

Department of Orthopaedic Surgery, Hospital Kuala Lipis, Kuala Lipis 27200, Malaysia.
Department of Radiology, Hospital Kemaman, Kemaman, 24000, Malaysia.

INTRODUCTION:
Cervical fractures are commonly resulted from motor-vehicle accidents. It has been reported in literatures that cervical fractures have been missed in patients who are involved in motor-vehicle accidents (MVA). We present a “near-miss” case of a C6 fracture detected on day 2 post-trauma.

Case Report:
Mr XY, a 24-year-old gentleman was involved in a motor-vehicle accident and he was admitted to the ward for cerebral concussion for observation. He denied having neck pain after regaining full consciousness at scene. The initial cervical spine radiographs (anteroposterior, lateral, and swimmers view) were labelled as normal. Prior to discharge, tenderness was elicited at the lower cervical region with reduced power and sensation from C6 and below. Repeated plain radiographs, computed tomography (CT) and magnetic resonance (MR) images showed a burst fracture of C6 vertebral body with a score of 4 in Subaxial Spine Injury Classification (SLIC) system. He underwent anterior cervical plating of C5-C7 vertebrae without any complications.

DISCUSSIONS:
There are cases of cervical fractures that have been missed in the emergency department with some diagnosed as late as 11 weeks post-trauma. Plain radiographs are sometimes inadequate to rule out cervical fractures in patients involving in MVAs. If a cervical fracture is unable to be ruled out based on Canadian C-Spine Rules (CCR) or National Emergency X-Rahiography Utilization Group (NEXUS) criteria, a computed tomography is needed. A missed cervical fracture with spinal cord involvement can lead to severe disability and even death. A score of 5 or more in SLIC system warrants surgical fixation for patients with lower cervical fractures.

CONCLUSION:
Cervical fractures are potentially devastating if they are not recognized and treated early. All traumatic patients must be properly assessed clinically and we cannot solely rely on radiology in order to exclude any cervical injury.

REFERENCE: