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**A TEAR CAUSING A DEADLY DOOM : A CASE OF BLUNT CEREBROVASCULAR INJURY**

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**Introduction:**

Blunt cerebrovascular injury (BCVI) is a non-penetrating injury to the carotid or vertebral artery that can cause stroke in trauma patients. BCVI has been considered rare, with an overall incidence of 1–2% in trauma cases.

**Case Description:**

A 24 years old gentleman presented to the emergency department with sudden onset of right-sided body weakness and slurring of speech. Further history revealed that he was involved in a road traffic accident 2 days prior and had been complaining of neck pain.

During examination, his GCS showed E3V2M5 with power 0/5 over the right upper limb and lower limb. There was also noticeable right-sided facial asymmetry with slurring of speech. Tenderness was felt over the upper cervical region.

Computed Tomography (CT) brain and cervical showed acute left middle cerebral artery (MCA) territory infarct with Jefferson’s fracture, C2 lateral mass fracture and C7 burst fracture.

CT angiography of head and neck revealed traumatic left internal carotid artery dissection complicated with intraluminal thrombus and resultant large left middle cerebral artery infarct.

**Discussion:**

BCVI is at a higher risk if there is a high-energy transfer mechanism, along with clinical or imaging evidence of significant craniofacial, cervical, or upper thoracic injuries. About 70% are associated with [cervical spine fractures](https://radiopaedia.org/articles/cervical-spine-fractures?lang=us). Positive signs and symptoms, and risk factors that fulfill Denver’s criteria in this case include [stroke](https://radiopaedia.org/articles/stroke?lang=us) on CT (left MCA infarct) and [cervical spine fracture](https://radiopaedia.org/articles/cervical-spine-fractures?lang=us) (Jefferson's fracture). The risk of cerebral infarction following BCVI is reduced with antithrombotic therapy, but it can be difficult as often there may also be intracranial hemorrhage or intraabdominal injury from the trauma. In certain cases, stenting of the injured vessel or open surgical repair is performed.

**Conclusions:**

BCVI in trauma patients requires a high index of suspicion based on the mechanism of injury, signs and symptoms, and risk factors. Carotid artery dissection can often be misdiagnosed if overlooked and carries a high mortality rate if delayed treatment. Thus, clinicians can utilize appropriate screening tests, such as Denver's criteria, and diagnostic tools, like CT angiography, in treating traumatic cases presenting with stroke symptoms.

**Keywords:**

Blunt cerebrovascular injury, Stroke, Cervical spine fracture.