



AB087. SOH24AB_180. Retrospective case series of vertebral artery injuries associated with cervical spine trauma

Anna Lawless¹, Leah Morris², Harry Marland³,
Kielan Wilson¹, Jake McDonnell³,
Gráinne Cunniffe³, Seamus Morris³,
Stacey Darwish³, Joseph Simon Butler³

¹School of Medicine, University College Dublin, Belfield, Dublin, Ireland; ²School of Medicine, Royal College of Surgeons, Dublin, Ireland; ³National Spinal Injuries Unit, Mater Misericordiae University Hospital, Dublin, Ireland

Background: Vertebral artery injuries (VAIs) can occur due to cervical trauma. VAI can prove a serious complication and potentially compromise vascular supply to the posterior aspect of the brain. Currently, there is a paucity of evidence with regards to incidence, management and outcomes for these patients. The purpose of this study is to investigate the incidence of VAI associated with cervical trauma at our institution, their respective management and outcomes.

Methods: A retrospective review was conducted at our institution, a national tertiary referral centre, from 2012–2021 to identify patients with VAI secondary to cervical spine trauma. Demographic, clinical and radiological data was collected to identify common traits in injury characteristics and management.

Results: A total of 1,013 spine patients presented to our institution across the 10-year period. Trauma patients accounted for 739/1,013 (73.0%). Imaging for suspected VAI secondary to trauma was done in 42/739 (5.7%). There were 14/739 (1.9%) confirmed VAI. All patients had CT-angiography for diagnosis. Four patients (28.6%) had additional MR-angiography imaging. Right-side was the most common side of VAI injury (7/14; 50%), followed by left (5/14; 35.7%) and bilateral (2/14; 14.3%) injuries. Anti-

coagulation treatment was prescribed for 8/14 (57.1%) patients. Acute mortality within 3-months was noted to be 2/14 (14.3%) patients, and occurred at 49 and 57 days respectively.

Conclusions: VAI associated with cervical spine injury are rare in occurrence. However, they can be associated with high morbidity and mortality. As such, a multi-disciplinary approach to care is integral to ensuring good outcomes in these patients.

Keywords: Brain; cervical; spine; trauma; vertebral artery injury (VAI)

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Footnote

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Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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