

AB134. SOH23ABS_116. Double trouble: penetrating neck trauma causing transection of the internal carotid artery and internal jugular vein

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Background: Vascular injury occurs in 6–20% of penetrating neck trauma and is associated with high rates of morbidity and mortality. Stroke secondary to carotid dissection and/or thromboembolism can have devastating consequences and arterial reconstruction to maintain cerebral perfusion is preferable to ligation.

Methods: We describe the management of a single stab injury to Zone III of the neck causing a combined arterial-venous injury.

Results: A 32-year-old man on Rivaroxaban for an unprovoked pulmonary embolism presented in Class III haemorrhagic shock with a single stab wound to the apex of the anterior triangle of the neck. He was alert and neurologically intact on arrival with hard signs of vascular injury. CT-angiography identified a large pseudoaneurysm of the internal carotid artery (ICA), sternocleidomastoid haematoma and an arteriovenous fistula. After initial deliberation about a temporising covered stent, the patient was taken to theatre for neck exploration. The transected internal jugular vein was ligated and the ICA was repaired with an interposition non-reversed saphenous vein graft. The patient had a peri-operative stroke in watershed territory, likely secondary to hypotension and vasospasm, but was discharged 2 weeks post-operatively with no deficits.

Conclusions: This rare injury requires an individualised

approach for which both open and endovascular techniques may be considered. As the carotid was transected, we feared that a wire passed antegrade across the defect may become extraluminal, and opted for open repair. Considering this patient's young age, underlying prothrombotic tendency and the contaminated operating field, we decided autologous vein would be preferable to a synthetic conduit for reconstruction.

Keywords: Arterial repair; penetrating trauma; vascular graft; vascular surgery; vascular trauma

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Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

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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